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ABSTRACT

The purposes of this study were to assess staff perceptions of desirability and level of implementation of Individually Guided Education (IGE)/Secondary Schooling in four high schools implementing programs similar to IGE and to identify factors enhancing or impeding implementation of these programs. Theoretical foundations of the study included IGE principles, social systems theory, leadership theory, and change theory. The field study design employed a questionnaire and an interview to gather school staffs' perceptions. Results indicated that IGE was perceived to be a desirable system of schooling having "some" but less than "adequate" implementation in each of the four innovative schools studied. Significant differences in the mean desirability and implementation ratings of IGE/Secondary were observed between and among the sample schools. Total desirability and implementation ratings were significantly correlated in three of the four schools studied. Staff perceptions of the desirability and level of implementation of IGE/Secondary were related to their roles in the school. Perceptions of desirability and implementation of IGE/Secondary were also related to number of years served in present position and involvement in team teaching. Numerous factors were perceived as bearing on the implementation of IGE/Secondary programs. (Author/JM)

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Technical Report No. 493

DESIRABILITY AND IMPLEMENTATION OF IGE/SECONDARY SCHOOLING IN SELECTED INNOVATIVE HIGH SCHOOLS

by

Michael John Maier

Report from the Project on
Studies of Administration and Organization for Instruction

James M. Lipham
Faculty Associate

EA 011 495

Wisconsin Research and Development Center
for Individualized Schooling
The University of Wisconsin
Madison, Wisconsin

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This Technical Report is a doctoral dissertation reporting research supported by the Wisconsin Research and Development Center for Individualized Schooling. Since it has been approved by a University Examining Committee, it has not been reviewed by the Center. It is published by the Center as a record of some of the Center's activities and as a service to the student. The bound original is in the University of Wisconsin Memorial Library.

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- providing assistance to educators which helps transfer the outcomes of research and development to improved practice in local schools and teacher education institutions

The Wisconsin Research and Development Center is supported with funds from the National Institute of Education and the University of Wisconsin.

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Mom and Dad inspired this effort. Their love and support have been evident throughout my life.

DEDICATION

To Michael and Mindy who did their best to leave Daddy alone so he could study. May they have the kind of educational opportunities that will lead to full and complete lives.

"The high school I taught in was kind of a nightmarish school. It was so large with no means of really communicating with the students. Students were passing through that place like ghosts.

The curriculum was very rigid so that if you had a conversation with a student about what was wrong there wasn't enough facility to respond to the kid's needs at that point. It was always a matter of the student trying to adjust to whatever program he had.

Many people at that school realized that it was a problem. There was an intense feeling that something was wrong. And I think it was out of that frustration--working in such a large school where so many kids were anonymous, where there were so many kids alienated and there was really nothing that could be done because the place wasn't organized to allow anything to be done--that some different way of organizing and creating an atmosphere had to be possible."

Principal, School A

"I find that every year I teach I get much closer to students as people. The school gave me the structure for that. I changed as a person. I changed because the structure let me change."

Teacher, School A

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Abstract

DESIRABILITY AND IMPLEMENTATION OF IGE/SECONDARY SCHOOLING IN SELECTED INNOVATIVE HIGH SCHOOLS

Michael John Maier

Under the Supervision of Professor James M. Lipham

The purpose of this study was to assess staff perceptions of desirability and implementation of IGE/secondary Schooling in four high schools which had implemented programs similar to IGE and to identify those factors which enhanced or impeded the implementation of programs similar to IGE/Secondary. The theoretical foundations of the study included IGE principles, social systems theory, leadership theory, and change theory.

A field study design was used. A questionnaire was developed and employed to gather data concerning the staffs' perceptions of the desirability and degree of implementation of IGE/Secondary. A semistructured, open-ended interview protocol was developed to elicit staff perceptions of those factors which enhanced or impeded the implementation of programs similar to IGE/Secondary.

The major conclusions of the study were as follows:

1. IGE/Secondary was perceived to be a "desirable" system of schooling having "some" but less than "adequate" implementation in each of the four schools studied.

2. Significant differences in the mean desirability and implementation ratings of IGE/Secondary were observed between and among the sample schools.
3. Staff perceptions of the desirability and implementation of IGE/Secondary were related to the roles occupied in the school. Department heads rated the desirability of IGE/Secondary significantly lower than did teachers, unit leaders, counselors, and administrators. Teachers rated the implementation of IGE/Secondary significantly lower than did unit leaders, counselors, department heads, and administrators.
4. Perceptions of desirability and implementation of IGE/Secondary were related to the number of years served in the present position and involvement in team teaching. Perceptions of the desirability of IGE/Secondary were also related to the nature of the subject matter taught.
5. Numerous factors were perceived as bearing on the implementation of IGE/Secondary programs. Participative and supportive leadership behavior on the part of the school principal and staff participation in identifying and solving existing problems were perceived to be especially important in facilitating the implementation of programs similar to IGE/Secondary.

Based on the conclusions, several implications for practice and for future research were delineated.

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CHAPTER I

INTRODUCTION

This study was designed to assess the perceptions of personnel in selected innovative secondary schools regarding the desirability and implementation of a set of objectives for individualizing instruction in secondary schools. These objectives were derived from Individually Guided Education (IGE), an alternative form of elementary schooling. The purposes of the study were to determine staff perceptions of the level of desirability and implementation of IGE/Secondary schooling and to identify factors facilitating and impeding the implementation of programs similar to IGE/Secondary.

Statement of the Problem

Four recent national commission reports (Brown, 1973; Coleman, 1974; Martin, 1975; Tyler, 1974) have called for widespread reform in secondary education. Common to these studies is the belief that the present structure of secondary schools isolates youth from other institutions, age groups, and experiences within society. Each of the studies called for new practices and programs that will recognize and deal with the differing needs, backgrounds, interests and learning styles of secondary students.

While a number of promising approaches have been tried in recent years, the conventional secondary school remains the dominant configuration today. As Gibbons put it:

> Many innovations have been recommended in recent years, many attempts at implementation have been conducted, and many adoptions have been announced. But the programs of the mass of secondary schools have changed little. There is no apparent structure or strategy for accomplishing major changes presently operating which can be employed to implement new programs or settings (Gibbons, 1976, p. 163).

Gibbons (1976) stated that the present educational system maintains itself and resists change. He believed that the necessary program changes will be made only through a comprehensive strategy that will simultaneously change the schools' organizational and decision-making structures. Similarly, Pierce stated:

> Advocates of reform often isolate one component of the educational system, devoting their full attention to a particular facet of the instructional process. In so doing, they fail to anticipate the interactive effects of one change upon the rest of the system. Few reformers have been daring enough to wrestle with improving curriculum content, modifying instructional procedures, changing teacher roles, and streamlining administrative procedures simultaneously. Yet, where this has happened, the results have been promising (Pierce, 1971, p. v).

One type of schooling that addresses itself to these concerns at the elementary level is Individually Guided Education (IGE) developed at the Wisconsin Research and Development Center for Individualized Schooling under the leadership of Herbert J. Klausmeier. Chase (1977) described IGE as follows:

> When fully implemented it takes on an institutional character as a new kind of school. It offers distinctive patterns for the organization and management of instruction and learning environments; it fosters new sets of relationships with other educational agencies and the supporting community; it incorporates coordinated strategies for continuing evaluation, refinement and renewal; and it stimulates staff development and curricular innovation (Chase, 1977, p. xi).

This study was designed to contribute to the development of a similar, comprehensive strategy for improving secondary education. Recently, Klausmeier (1977a) formulated IGE/Secondary Objectives calling for major changes in the instructional and organizational processes in secondary schools. While major change is needed, personnel in present organizations must plan and implement the desired changes. Accordingly, this study assessed practitioners' perceptions of the desirability and feasibility of these proposed IGE/Secondary Objectives.

Theoretical Framework

The conceptual and theoretical foundations of this study include the IGE literature, social systems theory, leadership theory, and change theory. The approach to individualizing instruction in secondary schools grew out of the same concepts which underlie the IGE elementary model. Social systems theory, leadership theory and change theory provide frameworks for analyzing various role incumbents' perceptions of the desirability and feasibility of the proposed IGE/Secondary Objectives.

Individually Guided Education

The Wisconsin Research and Development Center for Individualized Schooling began its program development in 1965 under the auspices of the Cooperative Research Act of 1963. What came to be known as Individually Guided Education (IGE) grew out of a project called Maximizing Opportunities for Development and Experimentation in Learning in the Schools (Project Models) under the direction of Klausmeier. That project attempted to deal with conditions prevailing in an unfortunately large number of elementary schools:

- Students are required to adjust to uniform educational programs; and provisions for differences in rate of learning, style of learning, and other characteristics are inadequate.
- Students are placed in age-graded classes and are expected to attain the same instructional objectives by studying the same graded basic textbooks and supplementary materials.
- Students are frequently evaluated using norm-referenced tests of intellectual ability and educational achievement, and such tests are often used for categorizing and grading students, not for improving their instruction.
- Teachers are treated as if they are equally competent in all subject fields and in all media and methods of instruction and appropriate provisions are seldom made for differences among teachers in interests, knowledge, experience, and expertise.
- Teachers spend nearly all their time throughout the school day with children, leaving little time for planning and evaluating instructional activities.
- The principal tends to be a building manager rather than an educational leader; the teacher is an independent ruler of a classroom rather than a cooperative team member; and administrative arrangements discourage cooperative planning and decision making.

- The staff spends most of its energy in keeping school going, and little effort is devoted to research and development activities that are essential to continuous improvement of educational practice.

- The staff of each school functions in relative isolation from other schools, and communication networks for sharing creative ideas, materials, and instructional approaches function only sporadically, causing great loss in educational effectiveness.

- The typical school building is not well adapted to effective instruction; access to library, audio-visual, and other instructional materials and aids is circumscribed; and space configurations impede varied types of grouping and learning activities.

- Parent contact with the schools is largely negative; it is concerned primarily with problems of school finance or student discipline, and the primary means for communication between the school and the home is by report cards or parent-teacher conferences, supplemented occasionally by a school newsletter. (Klausmeier, 1977b, p. 3)

The conditions listed above also prevail in a majority of the nation's secondary schools.

IGE/Elementary attempts to alter these conditions through the use of seven interrelated components. These components are: the multiunit organizational-administrative arrangements, a system of individual instructional programming, a decision-making evaluation system, curricular materials compatible with the instructional programming and evaluation systems, a home-school-community relations program, a facilitative intra- and extraorganizational environment for the implementation of IGE, and a continuing research and development program for the improvement and refinement of IGE practices and concepts.

A number of studies conducted at the Wisconsin Research and Development Center indicate that IGE elementary schools constitute a viable alternative to the traditional age-graded, self-contained classroom mode of education. Some of the more significant findings can be summarized as follows:

1. Pupils in IGE elementary schools scored significantly higher on measures of attitudes toward self-concept as learners than pupils in non-IGE schools (Nelson, 1972).
2. Student achievement in reading and mathematics in IGE elementary schools compared favorably with non-IGE schools (Hackett and McKilligin, 1972; Sigurdson, 1976), and dramatic results were achieved in expected reading scores in a suburban IGE school studied in Connecticut (Gervase and Lindia, 1974) and reading achievement in an IGE school studied in the Watts area of Los Angeles, California (Flourney, 1976).
3. IGE elementary schools were more dynamic (in that they were less centralized and formalized) and were more flexible and innovative than non-IGE schools (Walter, 1973; Herrick, 1974).
4. Once established, budgets of IGE elementary schools are similar to non-IGE schools (Evers, 1973; Boardman and Hudson, 1973).

Professor Herbert Klausmeier concluded:

> High quality instruction is realized in IGE schools when conditions such as the following are operative: shared decision making, continuous pupil progress, personalized instruction, active learning, evaluation related to instructional objectives, involvement of parents and community support, and support by responsible educational agencies (Klausmeier, 1977c, p. 7).

The above concepts underlie the recently formulated objectives for IGE/Secondary. The nine interrelated components which together constitute the system of IGE/Secondary schooling are depicted in Figure 1.1 and listed below:

1. Administration of the School.
2. Organization for Instruction.
3. Instructional Programming for the Individual Student.
4. Compatible Curricular Materials for Instructional Programming for the Individual Student.
5. Evaluation for Instructional Decision Making.
6. Home-School-Community Relations.
7. Community Learning Experiences.
8. Facilitative Environments.
9. Research and Development.

The following is a description of the components as they are presently formulated (Klausmeier, 1977a).

Component 1: Administration of the School

The principal (and assistant principals) provide(s) leadership in planning, coordinating, and evaluating the following programs of the school: curricular and co-curricular experiences of students

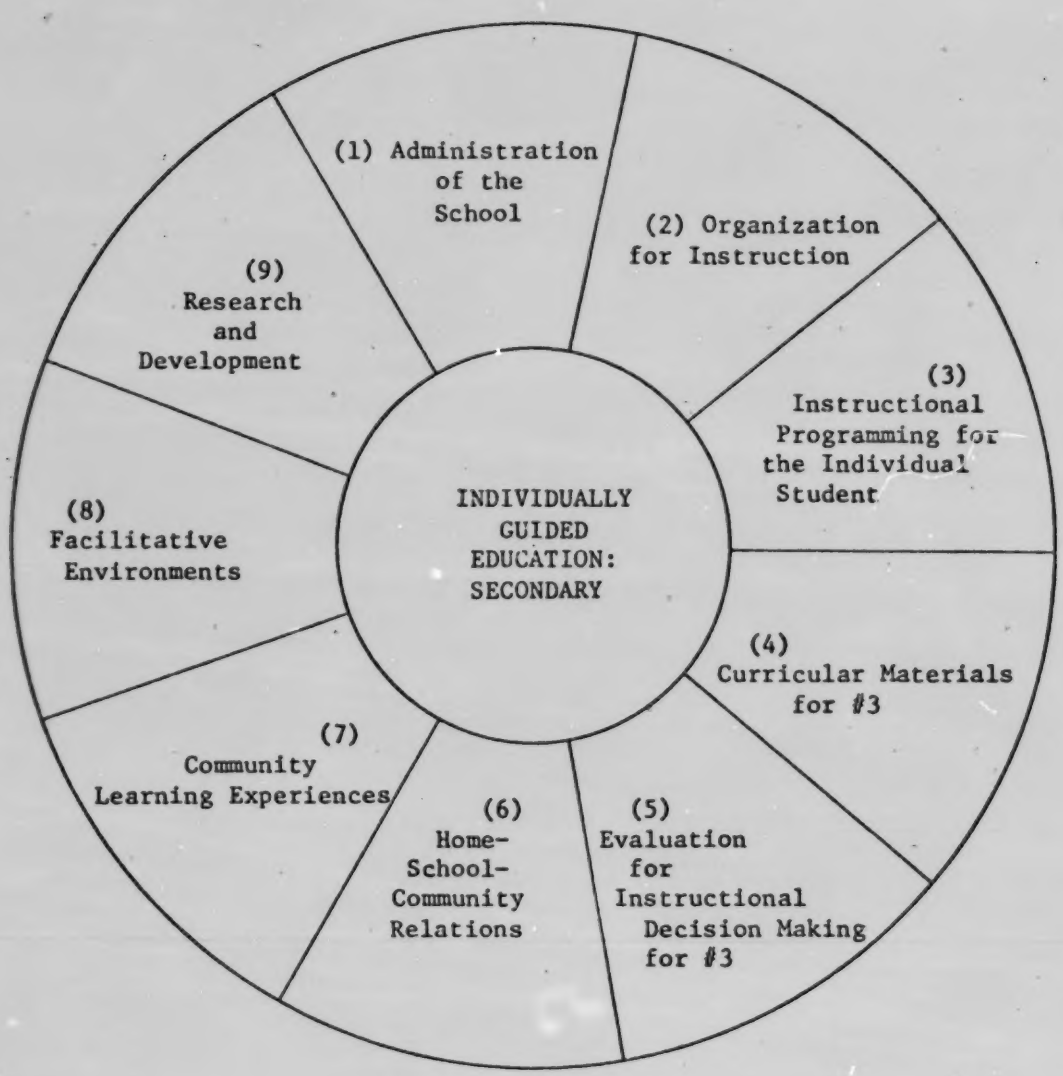
(1) Administration of the School
(2) Organization for Instruction
(3) Instructional Programming for the Individual Student
(4) Curricular Materials for #3
(5) Evaluation for Instructional Decision Making for #3
(6) Home-School-Community Relations
(7) Community Learning Experiences
(8) Facilitative Environments
(9) Research and Development
INDIVIDUALLY GUIDED EDUCATION: SECONDARY

Fig. 1.1. Major Components of Individually Guided Education: Secondary.

in the community, student advising, home-school-community relations, relations with external agencies, and continuing research and development.

In relation to these programs, the principal and assistant principals take primary responsibility for: establishing policies, procedures, and programs which facilitate individualized schooling; initiating appropriate organizational structures, and clarifying organizational roles and relationships; selecting and assigning certificated and non-certificated staff members to fulfill appropriate organizational and instructional-advisory roles; evaluating the performance of staff members; providing and managing the facilities, materials, equipment, and other resources required to implement individualized schooling; and establishing effective two-way communication and shared decision making between and among administrators, other staff, teachers and students, and between the school and parents and citizens of the community.

In IGE, the principal's traditionally exclusive responsibility for planning and coordinating instructional activities is shared with the teaching staff. The theoretical justification for shared decision making is based upon the following concepts:

1. Group interaction can produce a total effect greater than the sum of its parts.

2. Decisions are placed in the hands of those most able to make them and most responsible for implementing them (Beugen, Kerns & Graper, 1971, p. 13).

Another positive feature of shared decision making is that it is easier to implement decisions when people have had an opportunity to participate in their formulation (Gregg, 1957). As Etzioni (1978, p. 626) wrote, "There is no way for a societal structure to discover the members' needs and adapt to them without the participation of the members in shaping and reshaping the structure."

Studies under the direction of Professor James M. Lipham at the Wisconsin Research and Development Center for Individualized Schooling have stressed the importance of shared decision making in IGE elementary schools. Some of the major findings are as follows:

1. Teachers in IGE schools were more involved in decision making than were teachers in non-IGE schools (Walter, 1973; Herrick, 1974).
2. Teacher motivation was higher in IGE schools than in non-IGE schools (Walter, 1973; Herrick, 1974).
3. Teachers in IGE schools felt they were involved in making powerful and relevant instructional decisions (Holmquist, 1976; Moyle, 1977; Kawleski, 1977).
4. Within IGE elementary schools, the higher the degree of involvement of teachers in decision making, the higher was the degree of teacher job satisfaction (Feldman, 1976) and instructional effectiveness (Nerlinger, 1975).

Component 2: Organization for Instruction

The familiar organization for instruction in large secondary schools is the single subject course that meets daily for 45 to 60 minutes throughout the semester. Each course is planned and taught by a single teacher, not a team of teachers. Teachers spend little time advising students regarding courses to take, careers in which they may be interested, and personal matters.

It is difficult, if not impossible, for an isolated teacher to individualize instruction. Successful implementation of the Instructional Programming Model requires more interaction, communication, cooperation and shared decision making among staff members than normally occurs in the conventional, age-graded school. IGE/Secondary schools are organized in such a way as to foster the kind of interaction necessary to facilitate personalized instructional programs.

In IGE schooling, Instruction and Advisory Units are formed, composed of 100 to 250 students and a cooperative team of teachers. Each team is responsible for instructing the students of the unit and for advising them regarding educational and other matters. Each Instruction and Advisory Unit has a leader who is a teacher and who also may head a department.

The number and nature of Instruction and Advisory Units and the number of students and staff associated with each unit may vary according to the size of the school and other local conditions.

Knezevich and Way (1972) developed alternative Instruction and Advisory Unit structures to accommodate a variety of age levels and interests.

The decision-making groups in IGE/Secondary are organized to facilitate shared decision making and open communication among administrators, counselors and teachers. At the district level, the basic decision-making committee is called a Systemwide Program Committee or Council (SPC). It deals with matters related to curriculum, instruction, and student advisement at the district level.

At the building level, the basic decision-making committee is called the Instructional Improvement Committee (IIC). It deals with matters related to curriculum, instruction, and student advisement at the building level.

Each of these groups has overlapping membership facilitating proper information flow from one level to the next. The unit leader not only heads the I and A Unit but is also a member of the IIC, thereby serving as a link between the two. The principal, similarly, chairs the IIC and may be a member of the SPC. Thus, roles in the IGE/Secondary school are fused into a set of complementary organizational relationships, and important decisions at each level are made on the basis of information and input from the other levels.

Research conducted at the Wisconsin Research and Development Center concerning the IGE elementary multiunit structure can be summarized as follows:

1. There was a higher degree of work interdependence and open communication in IGE schools than non-IGE schools (Pellegrin, 1969).
2. Teachers felt their viewpoints were fairly represented in the decision-making structures of IGE schools (Nerlinger, 1975; Moyle, 1977).
3. The IIC performed crucial and significant functions related to the instructional program in IGE schools (Moyle, 1977).
4. Within I and R Units, group cohesion was high and members were satisfied with the shared decision-making processes (Kawleski, 1977).

Component 3: Instructional Programming for the Individual Student

The purpose of Individually Guided Secondary Education is to provide instruction that accommodates the interests, educational needs and career goals of the individual student. The other components are designed to contribute to a school environment in which it is possible to achieve this primary purpose.

Instructional programming for the individual student has two facets. First, arranging a total educational program for the student each semester suited to the student's educational needs and career interests; and second, arranging instruction within each course to meet each student's learning characteristics.

A model of instructional programming has been conceptualized that describes how materials, activities, time and teacher direction are purposefully varied to meet the needs of the individual learner. The instructional Programming Model (IPM) depicted in Figure 1.2 provides for the assessment of the student's beginning level of achievement, learning rate, learning style, and motivational level. It calls for teachers to teach in learning modes consistent with this information.

Component 4: Compatible Instructional Materials

Student attainment of instructional objectives in Individually Guided Secondary Education is promoted through the development and/or selection and use of appropriate equipment, supplies, and published instructional materials. Curricular guides include statements of the instructional objectives, evaluation tools and procedures related to the objectives, suggested instructional materials and activities, and student record-keeping procedures.

Component 5: Evaluation for Instructional Decision Making

Student learning, students' instructional programs, the school's curricular programs, and IGE as a system are monitored and improved through systematic evaluation carried out by the I and A Unit staffs and the IIC, with technical support and assistance from the school district office and external agencies as needed.

Each student's progress is evaluated by the I and A Unit staff during and at the end of instructional sequences and feedback

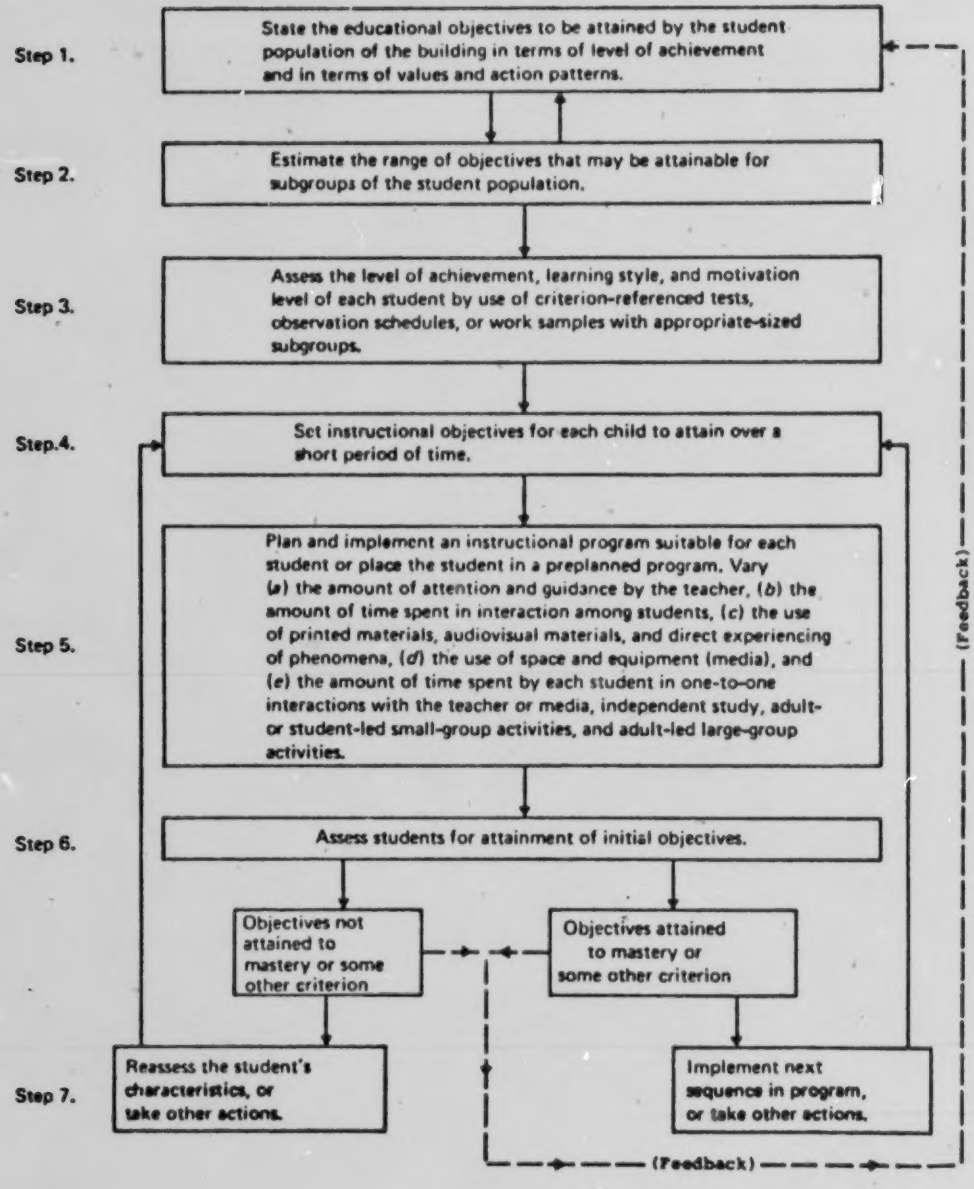
Step 1.
State the educational objectives to be attained by the student population of the building in terms of level of achievement and in terms of values and action patterns.
Step 2.
Estimate the range of objectives that may be attainable for subgroups of the student population.
Step 3.
Assess the level of achievement, learning style, and motivation level of each student by use of criterion-referenced tests, observation schedules, or work samples with appropriate-sized subgroups.
Step.4.
Set instructional objectives for each child to attain over a short period of time.
Step 5.
Plan and implement an instructional program suitable for each student or place the student in a preplanned program. Vary (a) the amount of attention and guidance by the teacher, (b) the amount of time spent in interaction among students, (c) the use of printed materials, audiovisual materials, and direct experiencing of phenomena, (d) the use of space and equipment (media), and (e) the amount of time spent by each student in one-to-one interactions with the teacher or media, independent study, adult- or student-led small-group activities, and adult-led large-group activities.
Step 6.
Assess students for attainment of initial objectives.
Objectives not attained to mastery or some other criterion
Objectives attained to mastery or some other criterion
Step 7.
Reassess the student's characteristics, or take other actions.
Implement next sequence in program, or take other actions.
(Feedback)
(Feedback)

Figure 1.2. Instructional Programming Model in IGE.

Source: Klausmeier, H. J., Quilling, M. R., Sorenson, J. S., Way, R. S., & Glasrud, G. R. Individually guided education in the multiunit school: Guidelines for implementation. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1971, p. 19.

is provided to individual students to facilitate their learning and to teachers to improve their instruction. With increasing experience, students assume more responsibility for evaluating their own progress in learning and their own instructional program.

The I and A Unit staff evaluates the effectiveness of each student's complete instructional program during the year and uses the information to improve subsequent instructional programming for the student.

The IIC evaluates attainment of the school's educational objectives by the student population of the school, based on summative evaluation information gathered systematically across the I and A Units.

Component 6: Home-School-Community Relations

Cooperative educational efforts and effective communications between the school and the home and community are fostered through a program of home-school community relations which is planned, implemented, and evaluated at each of the district, school, and teacher-student levels by the SPC, IIC, and I and A Units. The program of home-school-community relations provides for the following: effective communications between the SPC and the district community, the IIC and its school community, and the I and A Units and the homes of its students; participation of parents in planning the instructional program of their child(ren) with the teacher-advisor occurs at least once per year; an effective means of reporting

student progress to the students and their parents; participation of some parents and other community persons in the in-school educational activities, and participation of the IIC and the staffs of the I and A Units in the analysis of the home and neighborhood conditions of their students.

Component 7: Community Learning Experiences

A program of community experiences directly related to the characteristics of the school population and the community is planned, implemented, and evaluated at each of the district, school, and teacher-student levels by the SPC, IIC, and I and A Units which provides for: non-work educative experiences in the community to meet the educational and career needs of each individual student, guided work experiences in the community to meet the educational and career needs of each individual student, and increasing decision making by students regarding their community experiences as they are ready to assume responsibility for their decisions.

Component 8: Facilitative Environments

The environment for learning and instruction within each IGE school and for learning experiences in the community is enriched through the intellectual, technical, and material support provided by the intraorganizational arrangements and structures (I and A Units, IIC, and SPC) and extraorganizational arrangements and structures (leagues, regional IGE coordinating councils, state IGE

coordinating councils, teacher education institutions, and other external agencies).

Component 9: Research and Development

Student learning and personality development, instructional and administrative processes, and the roles of school personnel become better understood and also are improved through continuous research and development conducted by IGE school personnel and co-operating individuals and agencies. The I and A Units, IIC, and SPC, each at its appropriate level, share decision making regarding research and development conducted in IGE schools.

Social Systems Theory

Social systems theory provides the framework upon which the relationship between IGE/Secondary and personnel in selected secondary schools can be analyzed.

According to social systems theory the school may be conceived of as a social system consisting of two basic dimensions: the nomothetic or institutional dimension, consisting of the roles and expectations necessary for accomplishing the goals of the system; and the idiographic or personal dimension, consisting of the personalities and need-dispositions of the individuals within the system. Behavior is a function of the interaction between a given institutional role, defined by the expectations attaching to it, and the personality of the role incumbent, defined by his need

dispositions. In short, behavior is a function of role and personality, B = f (R x P).

The mode of individual-institutional integration may result from interaction between the nomothetic and idiographic dimensions in what Sweitzer (1969) has described as a transactional dimension. (Figure 1.3 illustrates the nomothetic and idiographic dimensions of a social system.)

Social systems theory provides the theoretical framework for this study. Klausmeier (1977d, p. 1) stated that successful implementation of IGE depends upon the development of essential competencies and attitudes on the part of the staff.

Social systems theory suggests that the implementation of a system such as IGE is a social process dependent upon the social behavior of the school staff. This behavior is, in turn, dependent upon the degree to which the institutional role expectations of IGE/Secondary are congruent with the personal need-dispositions of the individuals occupying those positions. According to social systems theory, IGE/Secondary is more likely to be implemented where school staff perceive its objectives as being desirable.

By measuring teachers', counselors', and administrators' perceptions of the desirability of IGE/Secondary Objectives, this study will determine the level of projected satisfaction with and likely implementation of IGE/Secondary.

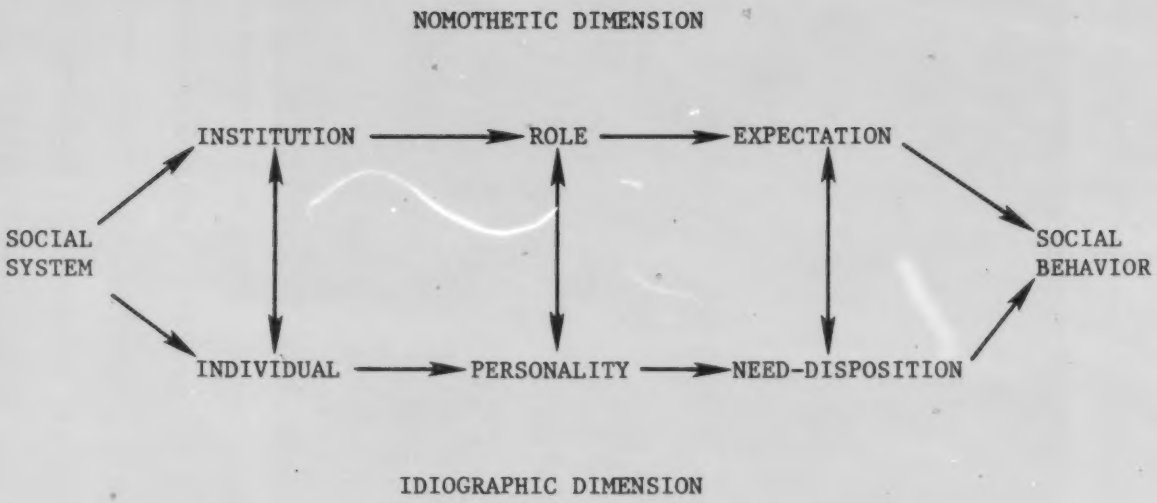

Figure 1.3. Nomothetic and Idiographic Dimensions of Social Behavior.

Source: Adapted from J. W. Getzels and E. G. Guba, "Social Behavior and the Administrative Process," School Review, 65 (1957), p. 436.

Leadership Theory

This study in addition to assessing staff perceptions of desirability and implementation of IGE/Secondary schooling, was also designed to identify those factors perceived to enhance the implementation of IGE. Effective role performance by the principal has been found to be a critical factor in the successful adoption and implementation of IGE at the elementary level (Goodridge, 1975). This study analyzed leadership behavior as it related to the implementation of programs similar to IGE/Secondary.

Leadership may be defined as "that behavior of an individual which initiates changes in goals, objectives, configurations, procedures, inputs, processes, and ultimately the output of the social system" (Lipham, 1973). Early studies of leadership focused on the psychological and physical characteristics or traits of leaders. The failure of these studies to isolate a universal set of traits common to acknowledged leaders led leadership theorists to search for leader behaviors that make a difference in the performance and satisfaction of subordinates. After examining 124 leadership studies, Stogdill (1949, p. 70) concluded that "a person does not become a leader by virtue of some combination of traits, but the pattern of the personal characteristics of the leader must bear some relationship to the characteristics, activities, and goals of the followers." The departure from the traitist approach was punctuated by Lewin (1939) when he and his co-workers examined the

social climates created by authoritarian, democratic, and laissez-faire styles of leadership.

The movement toward a situational approach gained momentum with the Ohio State Leadership Studies designed to describe leader behavior. Halpin (1957) found that two dimensions of leader behavior consistently accounted for a large portion of the leadership behavior being investigated. These factors were labeled "consideration" and "initiating structure." Consideration refers to the degree to which a leader acts in a warm and supportive manner and shows concern and respect for his subordinates. Initiating structure refers to the degree to which a leader defines and structures his own role and those of his subordinates toward goal achievement.

Investigators at the University of Michigan developed two similar concepts called (1) employee orientation and (2) production orientation (Katz, Macoby and Morse, 1950). Seashore and Bowers (1966) developed a four-factor theory in an effort to integrate the work done at Onio State and the University of Michigan. The four factors are as follows:

1. Supportive--Behavior that enhances someone else's feelings of personal worth and importance.

2. Interaction Facilitation--Behavior that encourages members of the group to develop close, mutually satisfying relationships.

3. Goal Emphasis--Behavior that stimulates an enthusiasm for meeting the group's goals or achieving excellent performance.

4. Work Facilitation--Behavior that helps achieve goal attainment by such activities as scheduling, coordinating, planning, and by providing resources such as tools, materials, and technical knowledge.

Support and interaction facilitation are roughly equivalent to Halpin's consideration while goal emphasis and work facilitation correspond to initiating structure.

More recently, House (1971) developed a Path-Goal Theory of Leadership. Two critical elements of the theory follow: (1) one of the strategic functions of the leader is to enhance the psychological states of subordinates in order to heighten motivation and job satisfaction, and (2) the specific motivational leader behavior is a function of the situation in which the leader operates. House's Leader Behavior Description, developed from the Ohio State Leader Behavior Description Questionnaire (LBDQ), identifies three leadership factors:

1. Instrumental leadership--behaviors which define roles and relationships, stress rules and regulations, schedule work to be done, stress standards of performance, and explain why tasks should be done.

2. Supportive leadership--behaviors which build interpersonal relationships, make it pleasant to be a member of the group, help others in overcoming problems, and facilitate change.

3. Participative leadership--behaviors which include working directly with others, listening to what subordinates say, asking for suggestions, and involving others in making decisions.

Mendenhall (1977) used Bowers and Seashore's four dimensions of leadership behavior to study the relationship of principal and unit leader leadership behavior to teacher job satisfaction in IGE

elementary schools. She found a significant, positive relationship between principals' support, goal emphasis, work facilitation and interaction facilitation leadership behavior and job satisfaction.

Two studies were conducted to examine the relationship between leadership behavior and the functions and processes of the IIC in IGE elementary schools. Smith (1972) employed Halpin's Initiation of Structure and Consideration dimensions to investigate the relationship between the principal's leadership behavior and the effectiveness of the IIC. He found that, while the Initiation of Structure behavior of the principal is important, an IIC will tend to be more effective if the principal is seen as exhibiting Consideration behavior.

Moyle (1977) used the instrumental, participative, and supportive leadership dimensions of House in studying the effect of leadership behavior on the effectiveness of decision-making processes in the IIC. Moyle found that IGE elementary principals characterized their own behavior as participative while IIC members described their principals' leadership behavior as supportive. He concluded that the leadership behavior of the principal was a crucial factor in the functioning of the IIC. Both Smith and Moyle noted that the principal was most effective in dealing with the IIC when exhibiting leadership behavior which varied from being extremely supportive and personal to very directive or instrumental as the situation warranted.

Gramenz (1974) utilized House's leadership dimensions to examine the relationship between the principal's leadership behavior and the effectiveness of the instructional program in IGE elementary schools. He found a significant relationship between the unit leaders' and teachers' perceptions of the instrumental, supportive, and participative leadership behavior of their principal and the effectiveness of the instructional program.

The present study employed House's instrumental, participative, and supportive leadership dimensions in analyzing the relationship between leadership behavior of the principal and the implementation of innovative programs similar to IGE/Secondary schooling.

Change Theory

Change theory provided the researcher with a variety of perspectives useful in identifying factors which facilitated the implementation of educational programs similar to IGE/Secondary in the schools studied.

Miles (1967) stated that there is no unified, general theory of educational change but rather a bewildering assortment of models and perspectives. The problem-solving model of change was relevant to this study.

The problem-solving model (Lippitt, Watson, and Westley, 1958) is an approach to change that focuses attention on the needs of the client. The process of change in this strategy begins with the client who identifies a problem, searches for alternative solutions

to the problem, and implements the selected solution on a trial basis before fully incorporating it. Major considerations in the problem-solving model are: (1) time for clients and resource staff to get together, (2) funds to hire resource staff, (3) availability and accessibility of resource personnel, (4) waiting for the user organization to initiate search for help, (5) established administrative arrangements which provide for active staff participation, and (6) cooperative staff.

The most distinctive components of this model are user centeredness and user diagnosis of problems. The motivation of the individual toward change can be brought about through a feeling of dissatisfaction with the existing situation--through the perceived discrepancy between "what is" and "what might be."

Rogers and Shoemaker (1971) developed a useful typology for relating the characteristics of an innovation and its acceptance. Their typology included:

1. Relative Advantage--the degree to which innovation is perceived as being better than the idea it supercedes.
2. Compatibility--the degree to which innovation is perceived as consistent with existing values, past experiences, and needs.
3. Complexity--the degree to which an innovation is perceived as relatively difficult to understand and use.
4. Trialability--the degree to which an innovation may be experimented with on a limited basis.
5. Observability--the degree to which the results of an innovation are visible to others.

It would seem that a major consideration in change programs is the nature of the innovation itself. As Paul (1976) said, "Complex innovations not firmly associated with existing needs and values are likely to be ignored, abandoned, or modified so that complexity will be reduced and relative advantage and compatibility enhanced."

Questions to be Answered

The purposes of this study were to assess staff perceptions of the level of desirability and implementation of IGE/Secondary schooling in four innovative senior high schools which had implemented programs similar to IGE and to identify those factors which the staff of each school perceived as facilitating and impeding implementation of these programs.

Accordingly, the following questions were posited:

1. To what extent do the staffs of innovative senior high schools which have implemented educational programs similar to IGE rate the desirability of IGE/Secondary schooling and to what extent do they rate its implementation in their schools?
2. Is there a significant difference in the mean ratings of desirability and also of implementation between the sample schools?
3. To what extent do teachers, unit leaders, department heads, counselors, and administrators rate IGE/Secondary

as desirable and also as being implemented and is there a significant difference in their mean ratings?

4. Is there a significant difference in total mean ratings of desirability and also of implementation of IGE/Secondary among teachers according to years of experience in present position, subjects taught, grade levels taught, and involvement in team teaching?
5. What factors facilitate and impede the implementation of programs similar to IGE/Secondary?

Significance of the Study

There is an urgent need to extend Individually Guided Education to the secondary level. Four recent national commission reports have called for widespread reform in secondary education. These reports call for practices and programs that will recognize and deal with the differing needs, backgrounds, interests and learning styles of secondary students.

Individually Guided Education has successfully altered the organizational and decision-making structures of elementary schools in ways that facilitate the individualization of instruction. This study was designed to contribute to the development of a similar, comprehensive strategy for improving secondary education.

The formulation of IGE/Secondary schooling studied here grew out of the same concepts that underlie the elementary model.

Additional adjustments and refinements may be necessary to meet the needs of secondary schooling. The present study, in analyzing the perceptions of secondary school personnel who have attempted to implement programs similar to IGE/Secondary, will contribute to the conceptualization of IGE at the secondary level.

Limitations of the Study

The study was limited to the staffs of senior high schools who were familiar with some aspects of IGE concepts and practices. Because of the selective criteria employed, the results of this study cannot be generalized beyond the schools studied.

A good share of the terminology and practices described in the questionnaire were new or foreign to many respondents. While a conscious effort was made to orient the school staffs to IGE/Secondary terminology and point out similar school practices and decision-making structures in their school, it is likely that the results were distorted by lack of understanding.

Interview techniques are not without their limitations. Respondents' answers can be influenced by the desire to make a good impression, particularly in cases where the researcher is identified with powerful role incumbents. Moreover, it is possible that some respondents perceived the researcher to be an "expert" from the Wisconsin Research and Development Center and might have been reluctant to discuss certain topics with him.

CHAPTER II

DESIGN OF THE STUDY

The chapter describes the study's methodology, population, data collection procedures, questionnaire and interview protocol development, and data analysis procedures.

Methodology

Kerlinger (1973) divided social scientific research into four major categories: laboratory experiments, field experiments, field studies, and survey research. A field study methodology was employed here. Kerlinger (1973, p. 405) stated that "field studies are ex post facto scientific inquiries aimed at discovering the relations and interactions among sociological, psychological, and educational variables in real social structures."

The study was designed to assess staff perceptions of the level of desirability and implementation of IGE/Secondary Schooling as well as those factors which facilitated and impeded the implementation of similar programs in selected, innovative secondary schools. The study was exploratory in nature because its primary concern was to discover relationships among variables rather than predict them (Kerlinger, 1973, p. 406).

A questionnaire was used to measure staff perceptions of the level of desirability and implementation of IGE/Secondary schooling.

Semistructured interviews were used to obtain additional data regarding the desirability and implementation of IGE/Secondary and to identify those factors which the staff of each school perceived as enhancing or impeding the implementation of programs similar to IGE/Secondary.

Population of the Study

The population of this study consisted of four innovative secondary schools which had implemented programs similar to IGE/Secondary schooling. The schools were selected according to the following criteria:

1. Each school participated in the 1977 Workshop on Educational Reform and Renewal Through Individually Guided Secondary Education at the Wisconsin Research and Development Center for Cognitive Learning.
2. Each school had implemented two or more of the following practices consistent with IGE/Secondary schooling: (a) a shared decision-making structure, (b) team teaching, (c) a teacher advisor system which provides students with additional course counseling and more frequent contact with adults, (d) instructional programming for individual students, (e) work or other educational experiences in the community, (f) significant student participation in instructional decision making and school governance.

3. Each school was willing to participate in the study.

The difficulty of locating schools which met the above criteria limited the number of schools in which this research could be conducted to the four schools selected.

Procedures for Data Collection

Both a questionnaire (see Appendix D) and semistructured interviews were employed in this study. The questionnaire was administered to the schools' entire instructional staff in three of the four schools studied. In the fourth school the researcher was unable to meet with the staff in a large group setting and had to proceed on an individual basis. The researcher interviewed two administrators, one counselor, two unit leaders or department heads, and six teachers in each of the four schools.

The questionnaire was used to obtain initial data regarding perceptions of desirability and implementation of IGE/Secondary schooling. The questionnaire also helped to focus and direct the interviews and provided the basis for determining which staff members should be interviewed. Interview selections were made on the basis of position and desirability scores.

The researcher interviewed two administrators in each school. The administrators interviewed were those with the lowest and highest scores on the desirability portion of the questionnaire.

The investigator interviewed one counselor and two department heads or unit leaders in each school. One school had department heads and no unit leaders; one had unit leaders and no department heads; two schools had both department heads and unit leaders. In the schools having both department heads and unit leaders the researcher interviewed one department head and one unit leader.

The three interview selections from the counselor and unit leader/department chairman group were made so as to include one individual who had one of the highest desirability scores in his school, one who had a desirability score at or near the median for his school, and one who had one of the lowest desirability scores in the school.

Six teachers were interviewed in each of the schools studied. Two of the teachers selected to be interviewed had high desirability scores in their school, two had low scores, and two had desirability scores at or near the median score for their schools. The researcher also endeavored to interview individuals from a variety of departments or other units of the school.

The researcher spent four days in each school. The first day was spent conversing with the principal and unit leaders in order to understand the school's organization and terminology so that the researcher might better introduce IGE/Secondary concepts and terminology when administering the questionnaire later in the day. The remaining three days were spent conducting semistructured interviews with selected staff members.

Each interviewee signed an informed consent form (Appendix A) guaranteeing the individual's anonymity on any reports of the research. Each of the interviewees agreed to allow the investigator to tape the interview with the understanding that the individual could turn off the tape recorder at any point in the interviews. None of the interviewees elected to turn off the tape recorder at any point in any of the interviews.

Development of the Questionnaire

The questionnaire was designed to measure perceptions of the level of desirability and implementation of recently formulated objectives for IGE/Secondary schooling (Klausmeier, 1977a). A 75-item IGE/Secondary Questionnaire (Appendix B) was developed consisting of the following eight components:

1. Organization for Instruction and Related Decision-Making Arrangements.
2. Instructional Programming for the Individual Student.
3. Curricular Materials.
4. Evaluation for Instructional Decision Making.
5. Home-School-Community Relations.
6. Community Learning Experiences.
7. Facilitative Environments.
8. Research and Development.

The questionnaire's format was based upon the "Questionnaire to Assess Staff Development Needs" (Klausmeier and Krupa, 1977), which has been used to measure the level of implementation of Individually Guided Education at the elementary level. Perceptions of desirability and implementation were measured with Likert-type scales.

Professor James Lipham, Professor Herbert Klausmeier, and Tom Klausmeier, a doctoral student conducting a similar study at the junior high school level, assisted in the development of the following desirability scale:

Desirability Scale

1. Highly Undesirable
2. Undesirable
3. Somewhat Undesirable
4. Somewhat Desirable
5. Desirable
6. Highly Desirable

The implementation scale which follows was developed by Klausmeier and Krupa (1977) for their "Questionnaire to Assess Staff Development Needs."

Implementation Scale

1. Don't Know
2. No Implementation
3. Adequate Implementation
4. Some Implementation

5. Approaching Ideal Implementation

6. Ideal Implementation

The desirability portion of the eight-component, 75-item questionnaire was administered to the graduate class in Organizational Theory and Behavior and to participants of the 1977 Workshop on Educational Reform and Renewal Through Individually Guided Secondary Education conducted at the Wisconsin Research and Development Center for Cognitive Learning in April of 1977 (Working Paper #206). Participating in the workshop were two school district administrators, seven high school principals, one assistant senior high school principal, 14 middle and junior high school principals, a secondary school reading consultant, four professors of secondary education, a state IGE coordinator, and a representative from a firm that produces IGE elementary curriculum materials. The reliability of the initial IGE/Secondary Questionnaire for the total instrument was .97.

The criticisms and suggestions of class members and workshop participants led to a revision of the initial questionnaire. In the course of the first revision an administrative component, developed by Professors James Lipham and Herbert Klausmeier, was added. The result of the first revision was a nine-component, 72-item questionnaire (Appendix C).

The revised instrument was pilot tested at an innovative high school in a neighboring state. The staff of this school had a great deal of difficulty with the questionnaire, believing it to be too complex and lengthy. Another researcher using the same questionnaire in junior high schools encountered the same criticisms in one of his initial schools.

A second revision of the questionnaire was, therefore, undertaken. The Administration and Organization Research Component shortened and simplified the language. The result was the final, nine-component, 62-item questionnaire (Appendix D) that provided the basis for the statistical portions of the study.

Reliability of the Questionnaire

An instrument can be said to be reliable to the extent that it is an accurate or "true" measure of the property in question. Reliability can also be defined as the relative absence of errors of measurement in a measuring instrument. The lower the measurement error the greater the reliability (Kerlinger, 1973, p. 443).

The index of reliability critical to this study was that of internal consistency since each property or component in the instrument was composed of several items. Accordingly, Coefficient Alpha, a technique for determining how well each test item correlates with other items measuring the same property, was used to establish the reliability of each scale. The formula for Coefficient Alpha

follows below (Nunnally, 1967, p. 196):

$$r_{kk} = \frac{k}{k-1} \left(1 - \frac{\Sigma \sigma i^2}{\sigma Y^2} \right)$$

where,

k = the number of items in the scale or test

σi^2 = the standard deviation of items in the scale or test

σY^2 = the standard deviation of the scale or test

Alpha coefficients were computed for each component and the total instrument for each of the schools. The alpha coefficients were computed by PROGRAM TSTAT (Spuck, 1971a), a computer program written by personnel in the Wisconsin Information Systems for Education.

The reliability coefficients for the IGE/Secondary questionnaire for the schools studied are presented in Table 2.1 and Table 2.2. Table 2.1 presents alpha coefficients for ratings of desirability for each of the nine components. Table 2.2 presents alpha coefficients for ratings of implementation for each of the nine components in the schools studied.

Spuck (1971b) indicated that alpha coefficients between .50 and .60 are satisfactory for early stages of research and that those above .70 possess high degrees of internal consistency. Tables 2.1 and 2.2 indicate that the reliability coefficients exceeded .50 for each component in each of the schools and exceeded .70 in most instances. The reliability coefficient for the total scale for each

TABLE 2.1

RELIABILITY COEFFICIENTS FOR DESIRABILITY PORTION OF IGE/SECONDARY QUESTIONNAIRE

Component	Pilot School N = 75	School A N = 66	School B N = 53	School C N = 70	School D N = 11
Administration of the School	.88	.70	.59	.85	.73
Organization for Instruction	.92	.89	.90	.87	.92
Instructional Programming	.95	.89	.94	.94	.90
Curricular Materials	.82	.71	.87	.86	.74
Evaluation for Instruction	.93	.92	.82	.91	.77
Home-School-Community Relations	.90	.87	.84	.88	.87
Community Learning Experiences	.89	.92	.84	.91	.94
Facilitative Environments	.83	.80	.81	.85	.89
Research and Development	.84	.80	.74	.87	.56
Total	.98	.95	.96	.98	.96

TABLE 2.2

RELIABILITY COEFFICIENTS FOR IMPLEMENTATION PORTION OF IGE/SECONDARY QUESTIONNAIRE

Component	Pilot School N = 75	School A N = 66	School B N = 53	School C N = 70	School D N = 11
Administration of the School	.82	.70	.83	.89	.69
Organization for Instruction	.90	.86	.85	.92	.84
Instructional Programming	.92	.90	.93	.96	.93
Curricular Materials	.85	.76	.68	.83	.82
Evaluation for Instruction	.87	.80	.80	.90	.79
Home-School-Community Relations	.82	.82	.85	.83	.63
Community Learning Experiences	.70	.84	.78	.79	.79
Facilitative Environments	.51	.75	.62	.82	.84
Research and Development	.80	.72	.66	.82	.50
Total	.96	.95	.96	.98	.95

school exceeded .94. The scales possessed sufficient degrees of internal consistency.

Content Validity of the Questionnaire

Reliability is a necessary but insufficient condition for test validity. Whereas reliability indicates the accuracy of an instrument, validity reflects the degree to which the instrument is capable of achieving the aims or purposes it was intended to serve (Kaplan, 1964, p. 168).

Content validation is basically judgmental in that instrument items must be judged for their relevance to the property being measured (Kerlinger, 1973, p. 458). Judgments as to whether or not the content of the questionnaire was sufficiently representative of the properties of IGE/Secondary schooling as formulated by Professor Herbert J. Klausmeier (1977a) were obtained from the following individuals:

1. Professor Herbert J. Klausmeier
2. Professor James M. Lipham
3. Tom Klausmeier, Colin Moyle, Noel Watkins, John Daresh, and Glenn Neiner, Project Assistants with the Project for the Administration of Instruction at the Wisconsin Research and Development Center.

Development of the Interview Protocol

A semistructured interview protocol was developed to elicit further information regarding the desirability and implementation of various IGE/Secondary components and to identify those factors which facilitated the implementation and proper functioning of similar, innovative programs already existing in the school. The interview protocol was developed with the assistance of Professor Lipham's graduate students and Professor Laurence Iannaccone. The protocol was refined in the course of the pilot study with the help of John Daresh and Glenn Neiner, who assisted the researcher with the pilot study. The resulting interview protocol follows below:

Interview Protocol

I. Introduction

A. The researcher

Name
Background
Affiliation with R and D Center

B. Rationale for the study

Improve secondary education
Expand IGE to secondary level

C. Who is being interviewed

2 Administrators
1 Counselor
2 Unit Leaders
6 Teachers

D. Use of information

Informed Consent Form

Use of names--no one will be identified by name.
Technical Report--research site will not be identified by name.
Tape recorder--recorder is in control of interviewee.

II. Biographical data

A. Interviewee's background

Experience in Education
Present position

III. Central open-ended questions

1. How does your school compare with other high schools in meeting the needs of its students?

2. What factors do you think account for the relative success of your school?

3. In what areas do you think your school is doing a good job?

4. In what areas do you think your school could improve?

5. What does the term "individualized instruction" mean to you?

6. To what extent do you think you are individualizing instruction in your school?

7. How are decisions made in your school?

8. How supportive is the administration to what you do in your classroom?

9. What do you think of the ideas presented in the questionnaire?

Each of these general questions was followed by additional, more probing questions as the researcher endeavored to learn more about the issue in question.

Data Analysis

The question dealing with staff perceptions of the desirability and implementation of IGE/Secondary was answered by computing the mean score and standard deviation of total staff ratings of desirability and implementation of the nine components of the total for each of the four schools in the study. The computations were carried out using computer program ONEWAY2, one of the STATJOB series of programs available at the Madison Academic Computing Center (MACC) at the University of Wisconsin.

Analysis of variance was the statistical method used to analyze the mean rating of desirability and implementation for each of the nine IGE/Secondary components and the total necessary to answer Questions 2, 3, and 4 (Hays, 1973, pp. 493-538). Question 2 asked whether or not there was a significant difference in the mean ratings of desirability and implementation between the schools, while Question 3 queried whether such a difference existed between people occupying different positions or roles.

Question 4 asked whether or not there was a significant difference in the mean ratings of desirability and implementation according to years of experience in present position, subjects taught, grade levels taught, and involvement in team teaching. The computations were carried out using ONEWAY2.

The probability level for all tests of statistical significance was set at .05. Missing data for ONEWAY2 was dealt with by

instructing the computer to replace individual respondent data with the respondent's mean score on those component items answered. The computer programs were processed on the Univac 1108 computer at the University of Wisconsin's Madison Academic Computing Center.

Question 5, designed to identify factors facilitating the implementation of programs similar to IGE/Secondary schooling, was answered through the use of semistructured interviews.

The interview data were coded and analyzed using the following categories:

1. School
2. Position
3. Division within the school (i.e., unit, department, etc.)
4. Organizational arrangements (the distribution of students, teachers and administrators within the school)
5. Instructional elements (i.e., distinctive aspects of the school's instructional program)
6. Demographic information
7. Change (the people and processes instrumental in changing to programs similar to IGE/Secondary)
8. Leadership (instrumental, supportive, and participative leadership behavior)
9. Individualization of instruction
10. Factors bearing on individualization of instruction

Summary

This chapter described the design of the study. It included considerations of methodology, population, data collection, questionnaire and interview protocol development, reliability and content validity of the questionnaire, and data analysis procedures.

CHAPTER III

PRESENTATION AND ANALYSIS OF THE DATA

This chapter consists of four sections. The first presents interview and questionnaire data pertaining to each of the four schools studied. The second section presents and analyzes data which compare the four schools' desirability and implementation ratings of IGE/Secondary. The third section presents data which compare desirability and implementation ratings across the positions studied. The fourth section analyzes data which compare desirability and implementation ratings of IGE/Secondary from the context of the respondent background data.

School A

School A is a comprehensive high school of 2,500 students in grades 10 through 12 located in a lower to upper middle-class suburb of a major city. The school was built in 1970 to relieve the crowded condition in the district's other senior high school. Roughly 5 percent of the student population is black. These students are attending the school for the first year as the result of court-ordered desegration.

Change

When the need for an additional high school became apparent, the district's superintendent of schools put School A's principal, then an assistant superintendent, in charge of the planning process. The principal worked closely with another assistant superintendent to determine some basic principles upon which the school building and program would be designed.

Their purpose was to avoid some of the problems they had experienced working in a large, traditional high school. In the principal's words:

> The high school I taught in was kind of a nightmarish school. It was so large with no means of really communicating with the students. Students were passing through that place like ghosts.
>
> The school had a commons program but other than that the school was extremely rigid and traditional. There was a lot of the old supervision, hall passes, all kinds of external monitoring devices of people in halls.
>
> The curriculum was very rigid so that if you had a conversation with a student about what was wrong there wasn't enough facility to respond to the kid's needs at that point. It was always a matter of the student trying to adjust to whatever program he had.
>
> Many people at that school realized that it was a problem. There was an intense feeling that something was wrong. And I think it was out of that frustration--working in such a large school where so many kids were anonymous, where there were so many kids alienated and there was really nothing that could be done because the place wasn't organized to allow anything to be done--that some different way of organizing and creating an atmosphere had to be possible.

The principal and the assistant principal generated some principles in response to these problems to guide them in the planning of the new school. These were as follows:

1. The building design should denote openness and reduce the need for public forms of student control.
2. The student should be treated like an adult with a planned degree of social and academic freedom.
3. The curriculum should be ungraded and contain options to the traditional learning setting.
4. There should be flexibility during the year to modify a student's program.
5. There should be a system that would provide improved course counseling and more immediate contact with students on an individual basis.

School A's principal shared these ideas with consultants from /I/D/E/A/ Kettering who incorporated them into a model. The principal then invited 15 teachers to a session to critique the ideas. After two days of discussions, the group unanimously agreed that the ideas were workable and that it would be worthwhile to build a high school around them.

The principal next met with the teachers of the district's junior and senior high schools to explain the rationale for the new school and invite those interested to apply for transfers to the school.

School A's principal was given the authority to select any of the 120 teachers who applied. He selected 54 individuals to fill the positions necessary to operate the school in its first year of operation when it was open to sophomores only. Most of the other original applicants were hired in subsequent years.

Organizational Arrangements

School A has five administrators: a principal, an associate principal, and three assistant principals--one for each grade level. The school's 120 teachers are organized into both academic departments and advisory teams. Each of the 15 advisory teams consists of seven or eight teachers from different academic disciplines.

The original organizational plan for School A called for the school to be divided into six Instruction and Advisory Units or Learning Communities. Each I and A Unit was to be composed of 250 students and 12 to 15 teachers. The units were to be similar, composed of students with a variety of interests and abilities. Under the plan, most of the students would have received most of their instruction from teachers in their unit. The hope was that the close personal contact and communications fostered by such an arrangement would promote a personalized environment and facilitate individualization of instruction.

Constraints to the Implementation of a Multiunit Structure. School A failed to implement the instructional half of the Instruction and Advisory Unit. The Advisory Team deals only with the

teacher's advisory duties. Instruction occurs through academic departments.

School A's departmental structure was cited as a factor in the failure to implement a multiunit structure. One teacher stated that there was an "undeclared war" between the departmental structure and the advisory structure. Another remarked:

> We came over in departments. Maybe that was a real hang-up. We had people designated as department chairmen coming into this situation. The learning community leaders were all counselors. The department chairmen maybe didn't want to lose that kind of power, so when they started talking about things in the learning community, they'd say, "Well, what about ordering books? We'll have to do that in department. We can't do that in the learning community, that will be so impractical." So I sensed that people like to have the power of the department.

The multiunit structure was also resisted for educational reasons. The school's principal feared that instruction in the unit would be too general and would not afford the kind of course specialization required of a comprehensive high school:

> I guess you could make it work if you arbitrarily said, "You can take one or two courses outside your community but other than that, that's your high school." But you'd have to say, "We're going to give up specialization; we're going to give up the richness of this big city environment and we're simply going to live with a small town high school." I'm not sure that kids or parents would accept that. The shortcoming of a very small rural school is their lack of specialization, their lack of opportunity to really go far in given areas.

One of the teachers noted that at the time the school opened, the majority of the students were college preparatory and that parents wanted their children to have the best possible

preparation for college. He indicated that it would have been a public relations fiasco for School A not to offer the same advanced courses that the district's other high school was offering. The principal concurred:

> You'd have to sell it to the community. At least in this school we felt the pressure--you've got a hundred and some faculty members and all kinds of terrific special talent, and, if you deny that talent to most of the kids by virtue of a learning community organization, it's a problem.

The principal was also reluctant to implement a multiunit structure because he thought it would result in a lot of "spontaneous curriculum":

> In that model, the teacher-advisors and the students have a lot of close communications and they determine for themselves, frequently, what's going to be taught. But once you make a spontaneous decision with a group of kids, you make that decision and forget the kind of support necessary to make that a meaningful study.

The principal believed that student learning opportunities should be highly planned. He was concerned that the school lacked the kind of management system needed to produce worthwhile learning activities. He was convinced that it would be necessary to have an objectives bank and massive curriculum support for the multiunit concept to flourish in a high school setting.

Instructional Elements

School A's educational program was designed to create variation and flexibility in order to be more responsive to student needs. It attempted to individualize instruction by providing

students with the opportunity to choose from a wide variety of course options and by trying to accommodate the student within the course.

Ungraded Curriculum. The school's ungraded curriculum increased the number of courses available to students. Students had to have prerequisites to get into certain courses, but they were not required to be "juniors" or "seniors."

The ungraded curriculum enhanced the school's ability to meet the individual needs. As the school's principal put it,

> We decided that the variation among students in terms of their interest and ability is greater than the variation that occurs simply by their being in one grade or the other. So we wanted to become ungraded because we thought what grade a student was in was the least important criterion in putting a kid in curriculum.

Quarter Course System. School A further increased the number of options available to students by breaking the curriculum into quarter courses. The quarter course system has been an integral part of the school since its inception.

> What was wrong with the old school was that the curriculum tended to be something that you get into in September and the expectation on the part of the school was that it's fixed and you stay in that until June. Our experience was that it led to a lot of all-or-nothing situations for kids very quickly. We felt that if we broke up the curriculum into more, shorter units so that at the end of shorter periods of time students could see how they were doing, we could be more responsive to kids.

School A went through the scheduling process twice each year in order to facilitate the quarter course system. The associate

principal's primary responsibility was student scheduling. The school employed an elaborate computer program for this purpose.

Individualization Within a Course. Teachers in School A were expected to accommodate to the needs of individual students within the course. As one teacher responded,

> We feel it's our obligation to handle most any kid who comes into the course even though he may be in the wrong spot. We try to assess right away in the first three days and spot the kids who are misplaced and adjust our expectations if they want to stick with the course.

The level of individualization reported by a number of teachers in School A approximated the Instructional Programming Model. As one teacher put it,

> Ideally, individualization means that every student should have success. I'd like to be able to say that I can take anybody in my class and teach them some chemistry and give them a lot of ways of getting at it--you can choose this lab or this filmstrip or answer these questions or listen to this tape--and have them come out with some basic concepts.
>
> Most of the kids are reaching the same concepts that I feel are most important. For students I feel are going on to college chemistry, I kind of coerce them into choosing something a little more difficult or additional concepts by saying, "Students are expected to do this."

The level of individualization reported did not vary from one department to another.

Advisor System. School A's advisor system provided students with intensive course counseling and frequent contact with and access to an adult. Each staff member had responsibilities for advising 20 students.

Advisors met with their advisees monthly to help them select their courses. One teacher explained: "We try to meet every kid's needs. We're trying to find out where he is, where he intends to go, where he might go, and help him plan accordingly."

The advisor system provided students with almost immediate access to an adult. Students were urged to see their advisor when they had a problem. In the words of the school's principal, "We don't want them to go for very long without telling somebody that something's wrong."

The advisor system has proved to be useful in this regard. One advisor remarked,

> They seek you out. They want to know what you think about things. They tell you they're having a bad time in class and don't know what to do about it. One boy ran away from home and came to my house. One girl wanted me to tell her mother that she was engaged. You really get involved with them.

While a number of teachers believed that they spent too much time keeping records, the vast majority were committed to the advisor system. One teacher commented,

> The advisor system was well received by all the teachers because they know that it is responsible for an attitude or atmosphere that exists in this school. The kids feel better about themselves because they know somebody knows them well and will back them up and give them help.

The advisor role has become an important, fulfilling one for the teachers in School A. One teacher remarked: "To me it's a really important role in teaching. It gives us a chance to get closer to 20 students than we could just by being in the classroom."

One teacher credited the advisor role with improving her relationship with students: "I find that every year I teach I get much closer to students as people. The school gave me the structure for that. I changed as a person. I changed because the structure let me change."

Counseling Center. School A's counseling center supported the advisor system and contributed to the individualization of instruction. The counseling center was a large open area furnished with a variety of tables for advisors to meet with their advisees. In the center of the complex was a large system of files containing information about careers, colleges, scholarships, testing, sex, and community learning activities.

The information was accessible to both students and teachers. The school's counselors who were responsible for maintaining the information had their offices off to one side of the complex where they were available to provide assistance. One teacher described the counseling center this way:

> The availability of information is incredible. There are people just waiting to help you and nobody gets pushed aside. If you have a question, it's going to get answered. The number one thing this high school is very good at is informing students about post high school activities.

Also critical to the success of the advisor program was a system whereby teachers were released from teaching responsibilities for two hours each week so that they might visit with their advisees in the course of the regular instructional day.

Leadership

The most important factor in the development of School A's program was the leadership behavior of the principal. When staff members were asked to account for the success of the school, the principal was invariably mentioned. One staff member responded this way:

> I think it comes from the leadership, from _____, primarily. He's a very intelligent person who understands the philosophy and is very enthusiastic about expressing it. He sets the tone and it's spread out to everybody on the faculty

The principal and his assistants set the tone for the way the staff interacted with the students. As one teacher expressed it,

> The administration is very concerned about kids, and they won't say, "We've got 2,500 kids and we have to do it this way. We can't take time to talk to this one kid who is having trouble coping." They'll take the time and they'll try to find a way to have that student fit in.

> When a vice principal was asked if sensitivity to student concerns was a conscious policy on the part of the school administration, he replied, "It's a philosophy of the school and a philosophy that comes from _____, first of all, which I agree with."

Supportive Leadership Behavior. While the principal and his assistants were quick to respond to student needs, they were equally responsive to the needs of teachers. One first-year teacher described the support she got from the principal in a conference she had with him on a discipline problem.

> He said, "There is no reason why you have to take that." And I never felt any vibes about "you're a bad teacher" or "you couldn't handle that." With any type

> of problem I've ever had, the administration is always willing to take care of it and back me 100 percent. It's very comforting.

Teachers were quick to mention the support they received from the administrative staff. A number of them thought that their department had received special attention from the principal:

> I felt from the beginning that we were supported. The principal was always very curious about what we were doing. I really felt that he was singling out our department at times and encouraging us.

Other teachers commented on the principal's outgoing personality:

> While we were still in the old school, _____ came out and talked with us. We went out to lunch once with the science teachers. I know that made a difference to me. I know I felt really good about it starting out. He makes an effort to get to know people.

Participative Leadership Behavior. While School A's principal had a considerable amount of interpersonal skill, his forceful personality intimidated some staff members. Some teachers who transferred to the school in hopes of getting involved in an innovative program were disappointed that they had no chance to participate in schoolwide decision making. This had dampened their enthusiasm.

A number of teachers emphasized the need for more effective schoolwide communication and decision-making mechanisms. The school's Instructional Improvement Committee and Student Council were only advisory in nature. The teachers on the IIC were those who were interested in serving on the committee and who happened to have a free period during the time when the committee met. Staff

members were uncertain about the function of the Committee and some did not know which teachers served on it. School A's principal did not exhibit a great deal of participative leadership behavior.

Instrumental Leadership Behavior. While the school principal seemed to dominate decision making at the schoolwide level, he gave teachers a considerable amount of freedom in their own classrooms. As one teacher remarked,

> I just never think twice about what I do in the classroom. One day I did a chemistry magic show and I did explosions and things like that and it never dawned on me that maybe I ought to check this because the administration is going to think it's wrong. I feel comfortable in trying things and doing something that might look that it's more fun than that it's actually teaching a concept. And I don't really feel that somebody is going to come in and tell me what to do.

There was not a lot of administrative rule making. One teacher made this comment:

> Almost all the rules we have came about as a result of some question or some violation that required a rule. They haven't just made up some rules and laid them on top of the program. They've grown up from within the program.

While the latitude and trust the administration has given to teachers had prompted experimentation and innovation, some felt uncomfortable with their autonomy. One of the school's counselors stated that there was a need for more direction in some areas,

> Freedom can limit you. What happens in this particular school is that you have freedom if you don't get caught. If you get caught, then you're in trouble, but you've never had any clear-cut guidelines so you are weighing, "Do I give up freedom for guidelines?" or

> "Do I give up guidelines for freedom?" It's a difficult situation to be in.

School A's principal did not exhibit a great deal of instrumental leadership behavior.

In summary, School A's principal exhibited a great deal of supportive leadership behavior, some instrumental and very little participative leadership behavior.

Other Factors Bearing on the Implementation of Individualized Programs

In addition to the instructional, organizational, and leadership factors described previously, the following factors were perceived as bearing on the implementation of the individualized programs in the school studied: central office support, the school facility, attitude toward students, and inservice training.

Central Office Support. One factor facilitating a program conducive to the individualization of instruction in School A was the encouragement and support the school's principal received from the district's central office. When the need for an additional high school became apparent, the district's superintendent said to the principal, "There is no reason why this school has to be like every other high school."

The principal was also given a great deal of latitude in selecting the staff of School A. While the district's other principals eventually succeeded in placing some restrictions on transfers,

the principal was able to select any of the district's teachers who wanted to transfer to the new school during the first two years of its existence when most of the staffing was completed.

A number of teachers indicated that a good deal of the school's success could be traced to the authority the principal was given to hire his own staff. In one teacher's words,

> That's the advantage of being a new school and having to start from scratch with no fixed curriculum, a new facility, and a new faculty. You start with a small cadre of faculty who are very strong. Then they mold everybody who comes in after that.

The principal of School A made the most of his opportunity. A number of teachers were impressed with his ability to hire people for School A. In the words of one, "I felt that everyone who came to this school was really interested in students and was willing to work hard and try just about anything."

When hiring staff the principal was careful to select individuals who not only believed in the school's philosophy but also committed themselves to specific job responsibilities. A counselor, in explaining the success of the school's advisory system, stated it this way:

> This program started with this school and every teacher who committed himself to work here had to commit himself to this particular program or was not hired. Even in the year I came in, when I talked to the principal, this was one of the things he said I was going to be doing. We had our choice in the beginning. It was nothing that was forced on us.

One staff member, in explaining the school's failure to implement a multiunit structure, suggested that there had been no real commitment to it at the time people were recruited.

The School Facility. School A was housed in a modern facility designed to facilitate interdisciplinary team teaching. The building was arranged into pods which contained a fair amount of open space. The building's design denoted openness and reduced the need for public forms of student control by providing for student movement in ways that were not disturbing to the classroom and library areas. The building was air-conditioned and carpeted.

Attitude Toward Students. The high regard teachers and administrators had for students contributed to the individualization of instruction in School A. The student was treated like a young adult. One teacher remarked, "The kid has power in this school. Just on an individual basis, he has power. All he has to do is open his mouth and somebody listens to him and somebody reacts."

The school expected students to be responsible. In the words of one teacher: "We think that the more responsibility you give kids, the more you treat them like adults, the more they tend to respond that way."

This attitude was consistent with the principal's philosophy regarding the nature of adolescence.

> You've got an adolescent now who in a year or two is going to be a free citizen. You don't get him to be an achievement motivated, autonomous adult by continuing to

> treat him like a child. He ought to be making some decisions.

School A provided students with a planned degree of freedom in its course planning and social aspects. The commons area was unsupervised, and students had to decide how to use an average of two hours of unstructured time each week.

Inservice Training. Appropriate use of inservice opportunities was an additional factor promoting the individualization of instruction in School A. Educational consultants from /I/D/E/A/ of the Kettering Foundation were intimately involved in the original planning process for School A. They incorporated many of the principal's initial ideas for planning the new school into a model which he later used as the basis for recruiting staff and organizing the new school.

/I/D/E/A/ was also instrumental in conducting a seven-week inservice program in the summer of 1970 for the first-year staff of 54. The program focused on the training of advisors and was characterized by a number of consensus-building exercises.

Questionnaire Data

A total of 66 people responded to the IGE/Secondary questionnaire in School A. Table 3.1 presents the background data on the respondents. Table 3.2 presents the means and standard deviations for ratings of desirability and implementation for School A.

Desirability. The mean desirability ratings for the nine components ranged from 4.58 to 5.67. The total mean rating for School A was 4.86. Respondents in School A generally rated the IGE/Secondary components as "desirable."

The research and development component was the highest rated component in School A. The evaluation component was the lowest rated component in School A.

Implementation. The mean ratings for implementation ranged from 2.76 to 4.18. The total mean rating was 3.49. The respondents' ratings generally grouped around the category "some implementation." The administration, home-school-relations, community learning experiences, and facilitative environment components were rated as "adequate implementation."

The community learning experience component had the highest implementation rating in School A while the evaluation component received the lowest rating.

TABLE 3.1

RESPONDENTS' BACKGROUND: SCHOOL A

Position

Teacher	56
Department Head	6
Unit Leader	0
Counselor	3
Administrator	1

Subject Taught

English	11
Social Science	9
Science	6
Mathematics	6
Vocational Education	20
Special Education	1
English/Social Stud.	2
Physical Education	1
Art/Music	6
Foreign Language	3
Blank	1

Years of Experience in Present Position

Years	Teacher	Department Head	Unit Leader	Counselor	Administrator
0-4	21	1		3	
5-8	19	2			1
9-12	12	2			
13-16	2				
17-20	1				
21-30	1	1			
31-50					

Grade Level Taught

Grades 9-10	0
Grades 11-12	0
Combination	66

Teaming

No	Single Subject	Two Subjects	Three or More Subjects
48	16	0	2

N = 66

TABLE 3.2

MEANS AND STANDARD DEVIATIONS FOR RATINGS OF DESIRABILITY AND IMPLEMENTATION ACCORDING TO NINE COMPONENTS AND TOTAL OF IGE/SECONDARY: SCHOOL A

	Desirability		Implementation	
Component	Mean	SD	Mean	SD
Administration of the School	4.87	.68	4.14	.72
Organization for Instruction	4.65	.88	3.28	.93
Instructional Programming	4.80	.55	3.42	.77
Curricular Materials	4.97	.68	3.30	1.02
Evaluation for Instruction	4.58	1.02	2.76	.88
Home-School-Community Relations	5.29	.65	3.98	.84
Community Learning Experiences	5.37	.76	4.18	1.09
Facilitative Environments	4.97	.79	3.62	.99
Research and Development	5.67	.71	3.27	1.08
Total	4.86	.52	3.49	.64

N=66

School B

School B is a comprehensive high school consisting of 85 teachers and 1,500 students in grades 11 and 12. The school is located in a conservative, factory-oriented community of 50,000 people. The community is somewhat provincial and generally critical of innovation. There is a wide disparity in income levels with teachers constituting the major middle class.

Change

In the late 1960's one of the district's assistant superintendents began working with the secondary principals to foster changes in the secondary schools. The district obtained a Title III E.S.E.A. federal grant to develop subschools designed to foster the individualization of instruction. In 1970, this program began operating as an alternative school-within-a-school for 900 students in grades 7 through 12.

Students were randomly selected and assigned to the program. It soon became apparent, however, that the independent study mode of instruction that predominated in these subschools was not appropriate for a substantial number of students.

In 1972, the district began studying the possibility of developing additional, alternative schools-within-a-school in order to provide settings that would accommodate other styles of learning.

A committee of students, teachers, and administrators asked each teacher to respond to questions such as the following:

1. If it were up to you to develop a secondary school, what would it be like?
2. To what extent should the teacher be dominant?
3. How much say should the student have?
4. How would you handle discipline in your school?

Armed with this information the committee developed 14 different modes of education or alternative schools-within-a-school. The number of subschools was eventually refined to seven when it was determined that it would be cumbersome to split 1,500 students 14 ways in a single school.

After voting to implement the concept in School B, the staff established the following subschools: The Independent School, The Conventional School, The Adaptable School, The Vocational School, The Work-Study School, and the Special Education School. Teachers selected the subschool of their choice. The match between student and teacher preferences was almost perfect--only two teachers were asked to take their second choice.

One of the original subschools was eliminated when it failed to offer a viable learning setting.

Organizational Arrangements

School B was arranged into six alternative schools-within-a-school. Most of the basic, core curriculum courses were taught in each of the alternative schools. The more specialized courses were interspersed throughout the entire school so that students frequently had to cross alternative school boundaries in order to take the course they desired.

Each alternative school operated as a small high school with its own office, secretary, counselor, and half-time director who also taught half time.

The director's role was loosely defined. As School B's principal put it, "We purposely didn't give them a role definition. If there was a role it was, 'You're the principal of a small high school within our school. You're to make that school the way you and your staff want it to be.'"

Each director handled the majority of his or her subschool's discipline problems and had the power to suspend students without approval from the dean or the principal. It was the directors' idea to assume responsibility for disciplinary concerns. One of them stated:

> If I as a director can get him to stop quicker than this rule will get him to, then why shouldn't I have a crack at it? As distasteful as discipline is, I want a chance to deal with that kid in our school rather than turning him over to the dean.

The directors, in addition to handling their own discipline and attendance and setting up their school's curriculum, also served as assistant principals helping the principal with schoolwide responsibilities. The directors met with the dean and the principal on a weekly basis to discuss schoolwide concerns.

The alternative subschool organizational arrangement was viewed as an effective administrative mechanism. One director remarked,

> I think there's a benefit in having separate schools even if they were all the same. It's a strong tool to run the school. If kids need information for graduation they don't go to the main office, they go here. If we have to have insurance forms filled out they go to the alternative office.

Another teacher put it this way: "The good point of alternative education is that we get to know our kids better. When our kids get into trouble is when a stranger is dealing with them."

A number of teachers commented on the sense of belongingness fostered by the small school environment of the alternative schools:

> Kids feel a part of a smaller unit. The kids that need it sometimes get the attention they want. With 1,500 kids out there in a comprehensive setting it would be difficult for the kids to walk into the main office and chat with the principal. They can do that in the six alternative schools. They can talk to the director.

School B's organizational structure also promoted a student-centered attitude in the subschool staffs. One teacher commented, "These are our kids. We know everybody by name. We know the good, the bad, and the ugly. We know them all. They're our kids. The

attitude is, 'What can we do for our kids?'" School B's organizational structure transformed a school of 1,500 students into a combination of small schools, and, in the process, helped to personalize the school environment.

School B's organizational arrangement of matching teaching and learning styles was also seen as having advantages for teachers. In the words of one: "Students benefit but teachers benefit most of all. A lot of school systems really stifle a lot of teachers in what they want to do. We're given the freedom here to teach the way we want to." School B's organizational arrangement was liberating to teachers in that it encouraged and valued diversity. There was no single "best" method of teaching. Rather, good teaching became a matter of matching teaching and learning styles. One teacher, when asked to account for the acceptance of School B's innovative program in a conservative community, remarked:

> I suppose that it's possible to interpret the organizational arrangement as simply acknowledging the status quo. We have some very innovative teachers and some very traditional teachers. So why not minimize the frustration by acknowledging both and throw up what looks to be an extremely innovative program?

Instructional Elements

School B attempted to enhance its instructional program by providing the student with a learning environment compatible with the student's individual learning style. Its program was based on the belief that each student should have the opportunity to choose

the type of educational environment which he feels best meets his needs as a learner. Each student, with his parents' consent, was able to choose from the six schools-within-a-school described below.

The Independent School. The Independent School was an updated version of School B's original alternative school designed to individualize instruction by: (1) allowing students to work on varying objectives, (2) allowing students to work at their own rate, and (3) varying the mode of instruction.

Students in the Independent School were given the responsibility for building their own schedule. Each week the student, guided by course requirements or personal needs and interests, scheduled himself into lectures, audio-visual presentations, discussion groups, and time for independent study.

The fluid and highly individualized nature of the scheduling process precluded any team teaching in the Independent School. One of the School's teachers described her teaching format as follows:

> Last year I taught two levels of accounting and typing and made either of those available to any student any hour--making different presentations on different days of the week. I would roam to answer any questions they had. I used the packet approach complete with objectives, expectations, and an evaluation scheme.

Independent study was the predominant instructional mode used in the Independent School. For example, the chemistry teacher had videotaped all his lectures.

The Conventional School. The purpose of the Conventional School was to provide structure and direction for students by emphasizing teacher responsibility for learning. Learning activities in the Conventional School were primarily teacher directed.

The Conventional School utilized a six-period school day with 55-minute periods. Students were encouraged to schedule as many academic classes as possible, thereby reducing nonclass time.

All classes in the Conventional School required daily attendance, and every attempt was made to reduce the number of days students were absent. Student evaluation was completed by the classroom teacher using the traditional A, B, C, D, and F grading system.

The Adaptable School. The Adaptable School was designed to meet the needs of students who desired a relatively structured program, yet wished to have some alternatives and flexibility available to them within that structure.

Students in the Adaptable School were encouraged to participate in community affairs and out-of-school activities. The school attempted to guide the student toward accepting adult responsibilities by gradually introducing and having students experience the consequences of their actions. The Adaptable School had six 55-minute periods, but provided flexibility by allowing the teacher and the student to negotiate the actual time spent in the formal classroom. One day each week there was an optional day where the student was encouraged to do something educational that was not

classroom oriented if one was caught up with classes. Students in the Adaptable School also received credit for volunteer service or career exploration activities.

The Vocational School. The Vocational School was designed to assist students in acquiring essential occupational skills and attitudes necessary to succeed in the world of work.

Many Vocational School students worked on a part-time basis. On-the-job training programs provided students with academic credit and additional supervision in one of the following work experience programs: cooperative vocational education, distributive education, and agri-business. Students were also encouraged to participate in youth clubs related to their occupational interests.

The Work-Study School. The Work-Study School was designed to provide a successful learning environment for dropout prone students with social and/or emotional problems. The school provided out-of-school jobs, intensive counseling, sheltered work experiences, and an individualized curriculum. Homework was kept to an absolute minimum since emphasis was placed on the completion of work within the classroom environment, where the teacher was able to provide individual help.

The Special Education School. The purpose of the Special Education School was to meet the needs of those students requiring special education services. The Special Education School focused on pre-vocational classroom instructional activities, practical

vocational training, and actual on-the-job work experience. Instruction was done in small groups or one-to-one.

Individualizing within the Alternative Schools. School B's alternative schools-within-a-school organizational framework was designed to match teaching and learning styles. One teacher explained the rationale this way:

> Different kids learn in different ways. Why not take the modes of learning and divide them into some alternatives? This eases the burden of the individual teacher to meet the individual needs of the kids in that classroom. It narrows down the problem. The teacher can teach the way he wants to and the student is already there because he learns better in that particular way.
>
> Personalized environment implies to many people liberalism, team teaching, and innovation, but I don't believe that. I believe that in our conventional school down there there's a personalized environment and those people are lecturing every day. But it's personalized because those kids and teachers want to be there. We've effected some kind of a match there.

School officials noted that the arrangement had resulted in reduced vandalism and improved discipline:

> Very seldom is there a classroom discipline problem because students have chosen the style they want to be taught in. This is especially true in the Conventional School. Students who couldn't take the structure and would strike out and become a problem don't choose that school now. And if a student is not happy in one school all he has to do is switch to another school that's more compatible.

A number of teachers stressed the importance of individualizing with the alternative school. The Independent School director noted that her school attracted two kinds of student extremes:

> We have a large number of self-motivated, accelerated kids who want to be freed from the average and go at a faster pace. But we also attract some of the less motivated students who want to avoid the hassle of the traditional school.

She stated that it was necessary to individualize in terms of structure:

> Most of the teachers operate under the "mother hen" concept, where you start the year with the kids under your wing, observe them and make judgments and as soon as you see that they're capable of flying without you, you let them fly. Some of them may never get out of the nest. Theoretically, they should not be in this school but we have a philosophy around here which says we've got to provide kids and parents with a choice. We do a lot of counseling and a lot of recommending but we can't say "No"; we've got to give the student the opportunity to try it.

Other teachers were reluctant to make assumptions relative to the student's learning style based upon the nature of the student's alternative school. The teacher of a specialized course that attracts students from a number of alternative schools had this to say:

> I think we really miss the boat by taking this group of kids and throwing them in a labeled area and then trying to teach all the subjects that way. When I put a kid into independent study, I don't check to see first if he's in the Independent School. I do it because in my judgment it's best for the kid. So the individualization that is being done is the way it's always been done. When the student finally gets in the classroom, if the teacher is conscientious and notices that the student learns better in a certain way, he does everything he can to provide that way. The student doesn't need to carry a label in there first saying that this is the way he learns better because that will vary from subject to subject.

Also contributing to the need to individualize instruction within the alternative school was the belief that the schools had become less distinct and different from each other.

> There's not that much difference between the schools any more, especially within the classroom. Some of the most traditional, most structured and strictest classrooms might be in the Adaptable School. Many of the teachers have aligned themselves with a mechanical thing (like a 50-minute period) rather than a philosophy.

While the studies the school had conducted suggested that students understood the differences between the schools when they made their choice, a number of staff members questioned the rationale on which the decision was based. One teacher was concerned that many students joined the school their friends joined. One of the guidance counselors believed that the parents' political philosophy was the best predictor of which school the student ended up in.

Leadership

The most important factor cited in the development and implementation of School B's school-within-a-school program was the leadership of the school principal. The alternative school arrangement was originally studied in grades 7 through 12. This involved two other schools, yet the program was implemented only in School B. The school staff believed that the reason the program was implemented in their school and not in the other two was the interest and leadership of their principal. In the principal's words: "I

wanted to go into this thing from the very beginning. I enjoy being swept up in innovative-type activities." Others mentioned that the principal's leadership style facilitated innovation and was particularly well suited to the school's organizational pattern.

Participative Leadership Behavior. The district's assistant superintendent chose School B's principal to lead the original study committee because of his ability to get other people involved. School B's principal believed that involving other people in decisions improved their morale:

> We're in the people business and somehow you have to make those people a part of it, to make them feel as good about the enterprise as you possibly can.
>
> We have a lot of great people. There are some people who have some needs for some leadership and the more we can utilize them the better off the school is going to be and the better off those people are going to be in your school. Sharing decison making as much as possible is one theory of leadership that I have.

The principal was quick to point out, however, that his leadership style had been fashioned primarily to satisfy his own personal needs:

> I love the involvement of a lot of people and can lean on a lot of decisions to help out. I get a lot of pleasure out of seeing other people succeed.
>
> I'm a risk taker and yet that isn't easy for me to do. I see myself as having a lot of creative ideas as a leader but not always wanting to take the chance to fail. So I need some help; I need a lot of people around me to help. Maybe it's so if the things goes down it isn't all me going down. If I was in business I'd want a partner in business.

School B was run in a participatory management mode. A great many decisions were delegated to the individual alternative schools. Schoolwide decisions were made by the directors, the dean of students and the principal in weekly meetings. Most decisions were made only after the group had reached consensus.

The directors appreciated the risk that the principal ran in delegating his authority. One director commented:

> It's more of a threat administratively because what he's saying is, "OK, you're responsible. I'm taking part of me and giving it to you. I'm responsible for curriculum development as principal, but you're closer to the action, you know these people better than I do--you handle curriculum development." That takes a lot of giving on the part of an administrator.

School B's principal had gone along with some decisions he was opposed to and knew might fail. One director recalled the decision to institute a smoking area for students as follows:

> There is nobody more philosophically opposed to smoking than _____. He can't tolerate it. But in reaching that decision he was willing to say, "We tried everything else and nothing worked and I'm hearing you guys saying that this will work."
>
> At the same time he'll say, "You own the problem and you've forced me to own the problem, now let's make sure we all own the solution. I don't want you running out there saying that _____ says we're going to have a smoking lounge. If there's any discussion about that smoking lounge, you'd best be defending it as strong as I am because you owned in the solution that we all agreed on. If you participate in the decision you've got to own in the solution.

Obviously, the principal of School B exhibited a great deal of participative leadership behavior.

Supportive Leadership Behavior. In addition to exhibiting participative leadership, School B's principal was also seen as exhibiting supportive leadership behavior. A number of teachers commented on the interest he took in them as people. One teacher described the principal in these words:

> _____ is one of the most kind, thoughtful, decent, considerate human beings that ever walked the face of this earth. If he gets criticized, he gets criticized for being too kind--not tough enough. But it's not because he's weak; he's just a great person.

One other teacher commented:

> He's a very, very considerate individual. Sometimes maybe too considerate for his own good. Sometimes I want to see _____ just really raise hell all over the building. But that's not part of his personality and you can't expect that out of him because it's not in him.

The principal explained his tendency to engage in supportive leadership behavior as follows: "If you need some personal acceptance then you try to give that to others."

Instrumental Leadership Behavior. School B's principal's personality did not lend itself to a lot of instrumental leadership behavior.

> _____ is a very free, easygoing kind of guy. If he trusts you and thinks you will do the right thing, he doesn't interfere.

While the staff appreciated the freedom and autonomy they were given, some had difficulty adjusting to the responsibility that went with it:

> Some of the people who had worked under the previous dictatorial regime just found it extremely difficult to work under _____ because all of a sudden they were faced with all these decisions for which they would have to bear the ultimate responsibility. It scared the hell out of some people.

The difficulty of agreeing on a common set of schoolwide rules in a school promoting diversity was also a factor leading to a relative lack of instrumental leadership on the part of the principal. In the words of one teacher,

> Sometimes I feel that this whole chain of command because of this alternative setup has been blurred to the point where it's difficult to find out who's making what decision, so you don't know who to complain to. That's a little bit frustrating sometimes. You can't really find out where the buck ought to stop. In that sense the freedom and autonomy that exists maybe results in some frustration too.

Other Factors Bearing on the Implementation of Individualized Programs

In addition to the instructional, organizational, and leadership factors described previously, the following factors were perceived as bearing on the implementation of the individualized programs in the school studied: attitude toward students, the school facility, staff commitment, inservice training, financial problems, and labor relations difficulties.

Attitude Toward Students. The high regard School B's staff held for students contributed to the individualization of instruction in School B. An open, relaxed atmosphere pervaded the school. Students with free time had the option of going to the lounge, the cafeteria, or the library. There was an open lunch period and

students were allowed to move through the building freely. All students were given a degree of freedom regardless of what alternative school they were in.

A number of teachers and counselors commented on the positive relationships that existed between students and teachers.

> The biggest positive thing we have going for us is the student-teacher relationship. In general, a very positive kind of rapport exists and a pretty high trust level. We've all had some human relations training, but it's mostly due to the dedicated nature of the staff. They believe in kids.

A student-centered atmosphere pervaded the school. In the words of one of the directors,

> What we've been able to accomplish here is a school designed for the kid. As we consider doing something in this school, our first concern is, "What is the impact of that going to be on our students?" rather than, "Well, what will the teachers say?"

This student-centered attitude combined with the staff's involvement in providing alternative environments for students has fostered an appreciation for the needs of the individual student.

The School Facility. School B's facility lent itself to the alternative school program. Staff members reported that the move into a new, carpeted, air-conditioned building enhanced school morale and helped get the alternative school program off to a good start. The open space area in the Independent School had contributed to the individualization of instruction.

The building design reinforced the concept of distinct and separate schools-within-a-school. Each of the alternative schools

was housed in a separate and relatively isolated wing of the school, creating the feeling that they constituted entities unto themselves.

This physical isolation, however, was disconcerting to some staff members who saw the building design and the alternative school program contributing to social stratification between students in the Independent, Conventional, and Vocational schools and those in the Work-Study and Vocational schools.

Staff Commitment. One of the factors facilitating the development of School B's alternative school-within-a-school program was the commitment of the school staff. When a vote of the district's secondary staff failed to generate sufficient commitment necessary to proceed with a federal planning grant to study alternative education in grades 7 through 12, a petition was circulated in School B asking that the project proceed there where 70 percent had favored involvement in the planning grant. The petition was signed by 90 percent of the school staff and the project proceeded in School B.

A year later when it came time to implement the concept, School B's principal was careful to obtain 100 percent commitment before proceeding. In his words,

> You know we do stuff pretty much by consensus around here. So in a meeting I tested how strong the opposition was and said, "We're going to go ahead with this but there must be 100 percent commitment to it. If you're strong enough in your conviction that you don't want to be a part of it, then you can be traded with people at _____. But if you stay you are staying committed to this program, committed to making it go. We can't do it unless we're 100 percent committed."

After obtaining commitment, teachers chose their schools. Only one individual, who was unwilling to take his second choice teaching assignment, was transferred.

Inservice Training. School B obtained 3/4 million dollars in federal grants to develop its individualized and alternative education programs. Most of this money was spent on inservice and most of that was used to give teachers time to think and plan. One of the directors explained,

> You have to give people time. It's very difficult to be creative at 3:30 in the afternoon. We've been able to provide time for people to be creative based on the assumption that they have the talent and will use it if given the opportunity.

During one summer, for example, two-thirds of School B's staff was employed for a period of six months to study, brainstorm, and plan alternative schools.

The use of appropriate outside consultants also facilitated the development of School B's program. Staff members visited other alternative school settings and interacted with visiting "experts in the field." All the Independent School teachers took a course in Cognitive Style Mapping, an approach that identifies student learning styles.

School B's staff reported a need for a new inservice effort:

> This may be an extraordinary high school, and people coming in here may say, "My God, what a fantastic thing." To our people that's old hat. Heck, they've been doing it for four years. We're in a situation where the extraordinary has become ordinary and we need to look for what else is extraordinary.

Some kind of renewed effort was necessary, they thought, in order to regenerate the commitment and enthusiasm that was so evident in the first two years of the alternative school program. One of the directors reported that the staff had depleted its creativity:

> We're on a holding pattern but it's not because we've achieved what we wanted to achieve. People are tired. It wasn't easy.
>
> If I've run the mile and I have another one to run, I don't know if I have the wherewithal to do that. I need some help to be able to run that second mile. I'm done. I've given you everything I can give. You're going to have to help me if I'm going to give you any more.

Financial Problems. A depressed economic situation had a deleterious effect on School B's efforts to individualize instruction. A statewide loss of revenue resulted in the state's not fully funding the school aid formula. The community's economy had suffered with a decline in employment. These financial difficulties resulted in the reduction of ten staff members at School B in the previous year.

The reduction created a situation in which students increasingly had to go outside their school-within-a-school in order to get the courses they wanted. One teacher commented, "We've all had to pick up more students and the students aren't where the schools are." One teacher mentioned that he now taught only 50 percent of the time within his alternative school.

The staff reduction also necessitated teachers taking on additional supervisory responsibilities. Teachers were concerned

that this was taking away from the planning time they needed to work with students and improve their school's program.

Labor Relations Difficulties. Another factor that slowed the progress of School B's efforts to individualize instruction was the controversy generated by teacher efforts to unionize. There had been a salary schedule in the past but no negotiated agreement. Teacher demands for the right to negotiate had created a lot of ill will in the community.

The school board's refusal to negotiate with the teachers had similarly created a morale problem among the staff--particularly as budgetary and staff cuts required teachers to assume additional supervisory responsibilities without any additional compensation. One teacher who was willing to teach a sixth class later refused to do so after being pressured by her peers. Independent School teachers who preferred to spread their students over six periods rather than have a preparation period had felt some pressure as well.

Labor relations problems were threatening to divide the school and the community and having a negative impact on the school program. One teacher summed up the situation this way:

> We're not doing everything we should be doing. We've done it all in the last five years but to keep doing all of these things is extremely difficult and takes a commitment that is extremely difficult to maintain, especially when there are a number of morale busters like a lack of commitment to education on the part of the community, staff cuts, and negotiation fights the last two or three years.

> There are some people on our staff with some pretty strong feelings who are not getting what they want and that has to carry over toward their attitude in their jobs.

Questionnaire Data

A total of 53 people responded to the IGE/Secondary Questionnaire in School B. Table 3.3 presents the background data for the respondents.

Table 3.4 presents the means and standard deviations for ratings of desirability and implementation for School B.

Desirability. The mean ratings for desirability ranged from 4.40 to 4.97. The total mean rating was 4.68. The IGE/Secondary components were generally rated as "desirable." The facilitative environments component had the highest rating and the evaluation component had the lowest rating in School B.

Implementation. The mean ratings for implementation in School B ranged from 2.96 to 3.96. The total mean rating was 3.38. The respondents' implementation ratings in School B generally grouped around the category "some implementation." The facilitative environment component received the highest implementation rating while the evaluation component received the lowest.

TABLE 3.3

RESPONDENTS' BACKGROUND: SCHOOL B

Position		Subject Taught	
Teacher	42	English	8
		Social Studies	6
Department Head	3	Science	2
		Mathematics	4
Unit Leader	2	Vocational Education	10
		Special Education	5
Counselor	4	English/Social Studies	3
		Physical Education	3
Administrator	2	Art/Music	2
		Blank	10

Years of Experience in Present Position

Years	Teacher	Department Head	Unit Leader	Counselor	Administrator
0-4	15	2	1	1	
5-8	7	1	1		
9-12	3			3	1
13-16	4				
17-20	3				1
21-30	8				
31-50	1				

Grade Level Taught		Teaming			
		No	Single Subject	Two Subjects	Three or More Subjects
Grades 9-10	0				
Grades 11-12	43	38	1	2	6
Combination	10				
Blank	1				

N = 53

TABLE 3.4

MEANS AND STANDARD DEVIATIONS FOR RATINGS OF DESIRABILITY AND IMPLEMENTATION ACCORDING TO NINE COMPONENTS AND TOTAL OF IGE/SECONDARY: SCHOOL B

Component	Desirability		Implementation	
	Mean	SD	Mean	SD
Administration of the School	4.60	.64	3.62	.87
Organization for Instruction	4.70	.88	3.56	.84
Instructional Programming	4.64	.71	3.33	.73
Curricular Materials	4.59	.91	3.13	.85
Evaluation for Instruction	4.40	.80	2.96	.81
Home-School-Community Relations	4.91	.77	3.26	.82
Community Learning Experiences	4.82	.84	3.35	.92
Facilitative Environments	4.97	.74	3.96	.83
Research and Development	4.69	.88	3.05	.92
Total	4.68	.64	3.38	.66

N = 53

School C

School C was a regional high school serving 1,500 students in grades 9 to 12. Until recently, when the district's second high school was built, School C had enrollments of up to 2,400 students from eight different elementary sending districts covering 100 square miles. The area had been basically rural and somewhat conservative. Its social composition was changing rapidly, however, as white collar workers moved into the area from neighboring cities.

Change

In the early seventies, School C's large numbers and overcrowded conditions resulted in an erosion of a sense of identity on the part of its students. There was a particular problem at the freshman level where students had difficulty making the transition from the comparatively small elementary or junior high school to the large, impersonal environment of School C. School C's principal explained the problem.

> They would come from a very traditional elementary school to a situation where they saw four different English teachers, three different social studies teachers, two science teachers and so forth, until they were seeing 17 or 18 different teachers in the course of the year.
>
> Academically, it sounded nice because each teacher was dealing with an academic area of expertise. Unfortunately, affectively, there wasn't much impact because nobody was getting to know anybody else and the kids were kind of wandering.

There was a problem with vandalism in the school and freshmen students were cutting classes and failing courses at an alarming rate.

School C began working on the problem in 1973. That summer, seven freshman teachers spent two weeks analyzing the problem and brainstorming alternative solutions. The group studied the /I/D/E/A/-Kettering and Wisconsin R & D IGE models and incorporated the aspects they thought would be appropriate into their own learning community concept.

The next fall the group invited others interested in the concept to their meetings. Interest picked up and freshman learning communities began operating the following year.

Organizational Arrangements

School C's 115 teachers operated within both a departmental and a learning community (Instruction and Advisory Unit) structure. Some teachers, particularly those teaching at the freshman level, taught both learning community and elective courses.

This dual system of organizing teachers and students was viewed as a highly desirable feature by the school staff. There were a number of teachers who were very happy with the learning community structure and others who felt their strength lay within the elective program. All respondents acknowledged the viability of both approaches and all were quick to stress the difficulties of forcing everyone into learning communities.

One teacher thought that such a move would impair the effectiveness of the learning community,

> I think it's really bad to try to tell a whole school that everyone should be in a learning community, because you're bound to have people that are going to be against it and it's hard to work in a learning community with people who don't want to be there. They'll just "gum up the works."

Other teachers had more selfish concerns. One teacher who spent some time teaching in a learning community was fearful that the community would expand to the point where he would lose the opportunity to teach trigonometry and solid analytical geometry--two classes not offered in his learning community. Another teacher put it this way: "I'm a subject-oriented person, and I really enjoy the elective system. It allows me to teach areas that I really am into, that I really like, and I think I can do a good job with."

One respondent suggested that certain individuals would not function well in a learning community:

> Some people just can't work with other teachers. I have a couple in my department who practically beg me to keep them off a team and they're excellent teachers. I'm not going to argue with them. They do a "hell of a job" where they are in the electives.

It was rumored at one time that the whole school would eventually be organized into learning communities. This notion was dropped if it was ever seriously considered. One teacher explained, "They'd have a rebellion if they tried to team everybody."

Roughly 40 percent of the school's staff were learning community teachers. Each learning community had a leader who met with

the principal and other learning community leaders on a monthly basis. While decisions regarding common issues were reached at these meetings, a great deal of decision making was delegated to the individual learning community. School C's principal believed that the learning community structure had a positive effect on students.

> We've been able to organize in such a way that the decision-making process is at the lowest level. In other words, that the teachers who are working with the kids are making decisions as far as scheduling, as far as budgeting, as far as curriculum, in some cases even discipline and evaluation.
>
> They are, in fact, a school-within-a-school, and the community leaders are mini-principals who have the same kind of responsibilities that I have, but on a somewhat smaller scale. They're obviously much closer to the kids and are able to make decisions with their kids in mind.

The principal was also pleased with the addition of the learning community leader role to his school.

> Many teachers want to have some kind of authority, some sort of power, and are being frustrated in their role of just having to take orders all the time. Many talented people are leaving the field for just that reason. This (the learning community leader role) gives them an opportunity to make some decisions and to go ahead.

The new learning community leader role had not led to the elimination or dilution of the department head position as some had suspected. Some teachers were originally reluctant to join a learning community for fear they would alienate the department chairmen by decreasing the number of people in the department--the basis upon which the department chairmen were paid.

School C's principal increased the duties of the department chairmen so that they were being paid more money than they were prior to the advent of the learning community. The principal met with the department heads once a month. Teachers reported that department heads made more money and had more status than learning community leaders. The learning community structure functioned alongside and in no apparent conflict with the departmental structure.

School C's principal explained the difference between the two positions as follows:

> The department chairman's responsibility is for the integrity of his discipline--no matter where it is taught in the high school. He's responsible for teacher observation, for making sure that if these are the objectives for this course that these are the objectives that are being met.
>
> The emphasis of the learning community leader is far more student oriented. They're responsible for these 100 kids. They're working with three or four other teachers. The emphasis is on the affective domain more so than the discipline.

Two of School C's department chairmen were learning community members. Both indicated, however, that no conflicts had resulted from this dual system of authority. In the words of one,

> No, I don't feel any different at all. If something needs to be done on the learning community and the leader tells me to do it, I do it. I don't have a power base or anything like that. It doesn't bother me for him to tell me what to do on that learning community. And if I have some things that I feel should be done mathematically in some of the learning communities then I'll work with the other learning community leaders on mathematics for their particular learning communities or get together with their math teacher on the community.

The department heads and learning community leaders met with the principal on a monthly basis.

Instructional Elements

Freshmen in School C were assigned to a learning community. Beginning with the sophomore year, students had the option of enrolling in an upper class learning community or electing courses through the school's multi-elective system.

Learning Communities. The five freshman learning communities were originally designed to focus on the following interest areas:

Liberal Arts--for students interested in a foreign language who might or might not go to college.

Math/Science--for students who liked either Mathematics or Science and were planning on going to college.

Humanities--for students interested in Art, Music, or Theater who might or might not be interested in going to college.

Vocational Business--for students interested in the trades who were not planning on going to college.

General Education--for students unsure of their interests.

This method of arranging students into learning communities was modified after one year when the teachers of the Vocational Business and General Education learning communities tired of having all of the lower ability and behavioral problem students in their two communities.

The school was still classifying students according to the same criteria. The learning community structure had been altered, however, so that each community consisted of students from two or more interest areas. The freshman learning communities could still be differentiated from each other, but the composition of each community was more heterogeneous in nature.

The basic core curriculum of English, social studies, math and science was taught in each freshman learning community by the same teachers for the entire year. Students took their physical education, industrial arts and home economics courses outside the learning community.

The following upperclass learning communities were available to students in School C:

Social Science Learning Community--for juniors interested in the social sciences or social service occupations. Chemistry, algebra, English and sociology were taught with a social science focus.

General Education Learning Community--for students in grades 10, 11, and 12 not going on to college. The core curriculum was taught from a practical survival skill orientation. An interdisciplinary approach was used for English and social studies.

Fine Arts Learning Community--for students in grades 10, 11, and 12. The community offered art, music and English

and social studies courses with a thematic structure. The community stressed the acquisition of affective and critical thinking skills.

Vocational Arts Learning Community--for juniors and seniors preparing for the world of work. Students took commercial foods, data processing, cosmetology, electronics, machine or automotive shop and received instruction in mathematics through an applied mathematics course stressing problems and terminology relevant to their specialty. An interdisciplinary approach was used for English and social studies.

Students received the bulk of their instruction within the learning community but took elective courses as well, particularly in those communities not offering certain core curriculum courses necessary for graduation.

The learning communities were viewed by the school staff as being highly successful. School administrators noted that the rate of cutting classes in the freshman year had gone from 18 percent in the year prior to the implementation of the learning communities to 3 percent in the first year of implementation. They also indicated that the failure rate in freshman English and social studies courses dropped from 12 percent and 15 percent to 2 percent and 3 percent, respectively, in the same time frame. One of the teachers commented on the changes brought about by the learning community

structure:

> There was just an incredible night and day difference. Our senior class was the last class to come in on modular scheduling but without the learning community, and I had the unfortunate experience of teaching them as freshmen. It was incredible. They were off the wall.
>
> And the next year, a larger class came in with roughly the same abilities and interests. But you come in with a structure, a discipline, with teachers who've got you right there. They know where you're at and where you belong. It just made a tremendous difference.

Part of the difference could be attributed to the fact that the students were interacting with only a few teachers who were in frequent communication. As one teacher put it, "If they're going to cut a class on a learning community, they'd better cut all of them because the other teachers are going to know that they were there for at least part of the day."

Others stated that increased parent contact had been important. A department chairman who taught both elective and learning community courses explained:

> On the team we'll contact the parents more often. Last year I had 10 kids flunking. Normally I might say, "The hell with it; they don't want to shape up." I called all 10 parents. I would say that I saved eight of the kids because the parents really got on their backs.

One learning community reported that they had seen over 50 percent of their parents on a one-to-one basis.

Learning community teachers explained that they were willing to put forth the extra effort necessary to communicate with parents because they felt more responsible for their learning community

students. One remarked, "It's really a sense of community that builds up--just like an athletic team. You get this rapport that really develops."

Teachers who taught both elective and learning community classes reported that they spent a disproportionate amount of time on their learning community classes because of the closeness that developed between the teacher and the students in the learning community.

A number of teachers commented on the instructional advantages of the learning community. One remarked,

> I think it also provides the opportunity for teachers to provide the kinds of environments in which kids' learning is going to be most effective in that they can make decisions at a level closest to the kids as to what's best for those kids. They can restructure their day; they can change their curriculum; they can introduce minicourses; they can emphasize specific areas; they can control their time all in direct response to what they see as the needs of the kids in the learning community. They have an opportunity to react instantaneously to what they see happening to their kids in the learning community.

The flexibility provided by the learning community structure enhanced the staff's ability to meet the needs of their students.

Multi-Elective Program. Beginning with the sophomore year, students in School C had the opportunity to choose from over 300 elective courses of either 9 or 18 weeks duration. This large selection of courses was seen as having many advantages for students:

> If the student has the ambition he can take five years of science, five or six years of math, some good tough English, and social studies courses--if he chooses

them. If the student chooses the other way he can take the easy path through all areas.

Some teachers thought the multielective system promoted the individualization of instruction more so than did the learning community structure:

> We have an incredible number of electives. And I don't think you can get much more individualized than that. You might take a program of studies unlike any other student ever has here. I know a student who took a heavy load of science and a heavy load of art and excelled in both. An no team worked it out for her. The learning community gives you a package deal.

Some staff members were concerned with the practical problem of teaching students of wide-ranging abilities, particularly in the freshman learning communities. One teacher explained:

> Take a math teacher on a learning community who has 35 kids and three levels of ability. You have some ready for algebra, some ready for introduction to algebra, and some ready for general math. Do you break these kids into three sections? Here you are struggling with three sections and down the hall there's another teacher in another community struggling with the same three sections. Whereas if you had the whole freshman class you could get sections of appropriate size and create courses and not have such a wide range of differences to deal with. The learning community has the same disadvantages that a small school has. A learning community has the advantage of knowing the kids, being closer to them, but has the disadvantage of not being able to offer the broad variety.

School C, by offering students the option of choosing from a variety of learning communities and a large number of electives, attempted to provide its upperclassmen with the best of both worlds.

Advisor System. Each of School C's learning communities adopted the advisor system as part of its philosophy. The theory

was that each student was to have a specific faculty member identified as his personal advisor. The advisor was to meet frequently with the student and counsel him or her on academic and personal matters.

In practice, the advisor system in most of School C's learning communities amounted to little more than a glorified homeroom. One counselor suggested that there was no purpose in specifying an advisor since the student often ignored him and sought out the adult in the community he could relate to most easily. In other cases, the learning community staff as a whole acted as the student's advisor acting in concert on behalf of the student.

Resource Centers. School C had five resource centers scattered throughout the school building. The resource centers served as mini-libraries for the various subject matter areas. Each center contained relevant print and media material and was staffed by one aide and one teacher.

The purpose of the resource centers was to give students and teachers the opportunity to meet to discuss an assignment or merely interact. Students who had been delinquent in completing their assignments were often assigned to a resource center during their free periods.

Leadership

Teachers in School C consistently identified the leadership of their school principal as a key factor accounting for the success

of their school program. The following statement by one of the department chairmen was typical: "_____ is the leader in our curriculum. There's no question about it. Most of the good ideas I have in English emanated from him." A number of staff members indicated that most of the ideas for improvements in the program came from the top.

Supportive Leadership Behavior. School C's principal was seen as exhibiting supportive leadership behavior by his staff. One teacher stated,

> I have never been in a place where there was so much general caring on the part of the administration. I have never in my life defended an administrator because I thought by the time they closed the door they were all glassy eyed; they had forgotten what went on in the classroom. But I don't see that happening here. I see them moving around and being as involved as is humanly possible.

Teachers commented on the principal's responsiveness to teacher problems. As one put it, "It's amazing how flexible and easy to work with he is. If you have a problem, all you have to do is go in and talk it out and it will get solved." One department chairman and former unit leader recalled the principal making a special effort to alter the schedule to provide his learning community with a longer block of uninterrupted instructional time. Another teacher recounted how the principal and the school board had supported him on a delicate personal matter.

Instrumental Leadership Behavior. School C's principal was also viewed as exhibiting instrumental leadership behavior. The

principal saw to it that roles were distinct and that expectations were clearly defined. One department chairman described how his job had changed under the principal's leadership:

> When Mr. _____ became principal he increased our duties a hundred fold. We have 100 job targets where before we had five. He works all chairmen much harder than they've been worked before.

The department chairman found the resulting structure to his liking:

> I didn't want to go to the new school. I wanted to work for _____, even though he's a tougher guy to work for. There's a little more satisfaction. Yeah, we think we know what we're doing here anyway. At least the illusion is there which makes us comfortable.

Administrative arrangments in School C were highly organized and coordinated. New courses or learning communities were approved only after the authors completed a thorough learning activity summary which included general objectives, topical outlines, performance objectives, and learning materials. These strict guidelines were required so that everyone involved would know exactly what would be required of the student in that course or learning community. School C's principal engaged in a considerable amount of instrumental leadership behavior.

Participative Leadership Behavior. School C's principal was also seen as engaging in participative leadership behavior. Teachers commented that there was an effort to involve people when a major decision was to be made. Department chairmen and learning community leaders stated that the principal was always looking for input. One department chairman estimated that 98 percent of the

important decisions were collegial in nature, involving at least the department chairmen and learning community leaders.

The principal described his philosophy of shared decision making as follows:

> There are two criteria we use in terms of involving people. One is relevancy--whether or not the decision that's about to be made is going to affect these people. Secondly, expertise--whether or not these people can contribute something to that decision. And if the answer to both of those questions is "Yes," then obviously they have got to be involved in that decision.

The principal was also willing to delegate total responsibility to others in certain situations. In the principal's words,

> If I sit down with a group of learning community leaders who have a problem and we look at the alternative ways of solving the problem, and I feel that one alternative is superior to the others, and they feel that another alternative is superior--I'd far more quickly agree with them and trust those people enough to go with their alternative because, in fact, they're the people who are going to have to implement it.

Learning community matters were left to the learning community even in situations where the principal disagreed. One individual remarked, "There have been times when he didn't like what we were doing with our schedule. And we liked it and we said, 'Hey look, we're autonomous on the team.' He backed down." Team members also selected their learning community leaders. School C's principal was seen as exhibiting a good deal of participative leadership behavior.

Other Factors Bearing on the Implementation of Individualized Programs

In addition to the instructional, organizational, and leadership factors described previously, the following factors were perceived as bearing on the implementation of the individualized programs in the school studied: inservice training, attitude toward students, and block scheduling.

Inservice Training. The use of appropriate inservice activities was a factor bearing on the development of School C's program. The two-week, inservice session in the summer of 1973 was instrumental in the development of the learning community concept at School C. Both the /I/D/E/A/ and Wisconsin R and D IGE Models were studied at that time. The learning community concept was adjusted to meet the needs of School C.

Most of the staff development exercises were conducted by district staff who had acquired expertise in a particular area. The district's reading specialist conducted a "We Agree Workshop" for learning community teachers that was helpful in generating the kind of interaction and commitment necessary for implementation. One teacher commented,

> In the beginning we went through things like consensus building--the idea of getting people to listen to other people to accept other people's ideas, to work together until they arrived at some solution which was going to be acceptable to all of them.

School authorities noted that the emphasis given to developing the

program from within using their own people had contributed to the school staff's sense of ownership.

School C's principal was convinced that additional inservice was needed, particularly in regard to new staff. In his words,

> As we have new people coming in we have got to pay attention to the fact that many of these people have never been through the kinds of inservices that we provided for the teachers in the beginning. I think that's one of the things that we really need to put some emphasis on. We ask new teachers to get involved, and they do, but it's kind of on-the-job-training rather than the kind of inservice things that should be happening.

The school staff also saw the need for additional inservice opportunities focusing on the advisor-advisee role and learning styles for existing learning community teachers.

Attitude Toward Students. A number of teachers of School C commented on the positive attitude toward students existing in their school. One of the school's guidance counselors had this to say:

> I think that the faculty here are really unique in that they are very interested in the kids. In some cases I get irritated with the kids because I can't imagine how anyone can fail in a system where so many are working to try to help the student.

Another teacher remarked,

> This is the heaviest place. I visited this school a number of times before I came here and I was very impressed with it at the time. It's kind of hard to comprehend when you first walk in all of the different moving parts that go to make up the whole. But I would say that I have never been in a school where this kind of attention and this kind of caring occurs systematically when you're dealing with 1,500 students and 115 faculty. I have never been in a place where there has been so much individual attention given to each individual student.

This student-centered orientation was facilitated by the elective nature of the school's curriculum. The principal recalled one situation where four teachers had spent two years writing a curriculum for a learning community only to find that no students were signing up for their community. As he explained, "If the kids don't buy it, it doesn't fly. They had to go out and sell their program and convince kids that this was the way they should get their education. It keeps the teachers on their toes." In two instances learning communities had been expanded to cover an additional year at the request of students who would have otherwise been leaving the community.

Block Scheduling. School C's block scheduling system facilitated the learning community program. The school's schedule brought learning community teachers and students together for large, uninterrupted blocks of common instructional time. This arrangement provided the learning community's teaching team with flexibility useful in meeting the needs of their students.

School C's block schedule was also useful in providing the teaching team with a period of common planning time in the course of the instructional day. Learning community teachers saw this as essential. In the words of one, "If we don't get that common planning time, the teams just divide and float apart."

School C's principal stated that the school's scheduling process was difficult but worthwhile. In his words, "We try to

build a master schedule which accommodates what the teachers are trying to do with the curriculum rather than bending the curriculum to meet the schedule."

Questionnaire Data

A total of 70 people responded to the IGE/Secondary questionnaire in School C. Table 3.5 presents the background data on the respondents.

Table 3.6 presents the means and standard deviations for ratings of desirability and implementation for School C.

Desirability. The mean ratings for desirability ranged from 4.44 to 4.86. The total mean rating was 4.60. Respondents at School C rated each component as between "somewhat desirable" and "desirable."

The curricular materials component received the highest rating in School C and the organization component received the lowest rating.

Implementation. The mean ratings for implementation ranged from 2.55 to 3.53 in School C. The total mean implementation rating was 2.91. Respondents' ratings in School C generally grouped around the category "some implementation." The administration component received the highest implementation rating in School C. The evaluation component received the lowest implementation rating.

TABLE 3.5

RESPONDENTS' BACKGROUND: SCHOOL C

Position

Teacher	52
Department Head	6
Unit Leader	7
Counselor	3
Administrator	2

Subject Taught

English	9
Social Science	6
Science	5
Mathematics	10
Vocational Education	13
Special Education	2
English/Social Stud.	2
Physical Education	9
Art/Music	2
Foreign Language	2
Blank	10

Years of Experience in Present Position

Years	Teacher	Department Head	Unit Leader	Counselor	Administrator
0-4	15	3	2	3	1
5-8	17	1	1		1
9-12	11	1			
13-16	3		1		
17-20	3	1	1		
21-30	4		1		
31-50					

Grade Level Taught

Grades 9-10	5
Grades 11-12	6
Combination	59

Teaming

No	Single Subject	Two Subjects	Three or More Subjects
41	4	5	20

N = 70

TABLE 3.6

MEANS AND STANDARD DEVIATIONS FOR RATINGS OF DESIRABILITY AND IMPLEMENTATION ACCORDING TO NINE COMPONENTS AND TOTAL OF IGE/SECONDARY: SCHOOL C

Component	Desirability		Implementation	
	Mean	SD	Mean	SD
Administration of the School	4.61	.96	3.53	1.02
Organization for Instruction	4.44	.79	2.90	1.06
Instructional Programming	4.58	.84	2.77	1.07
Curricular Materials	4.86	.89	2.88	1.23
Evaluation for Instruction	4.68	.95	2.55	1.22
Home-School-Community Relations	4.68	.91	2.96	.98
Community Learning Experiences	4.53	1.11	2.56	.97
Facilitative Environments	4.67	.94	3.34	1.10
Research and Development	4.79	.92	2.94	1.07
Total	4.60	.74	2.91	.90

N = 70

School D

School D was a large, comprehensive high school consisting of 3,800 students in grades 10 through 12. The school had long been noted for its superior academic, college preparatory program.

School D had a veteran teaching staff. Most staff members had taught at other schools before coming to School D. There was a very low staff turnover rate at School D. Fifteen of the school's 200 teachers had earned doctorate degrees.

School D was located in a predominantly upper-middle class, suburban community. The community was known for its interest and involvement in education. A number of the community's influential citizens served on the district's large and powerful standing advisory committee which routinely made recommendations to the school board regarding the district's various educational programs.

Change

In 1972, a group of central office and building level administrators, anticipating a change in the district's student population, recognized the need to expose School D's teaching staff to alternative instructional techniques in order to better meet a more diverse set of learner needs. The committee subsequently obtained a million dollar grant from a private foundation to develop an alternative school-within-a-school program for School D.

The director of a Title III validated alternative project in another school district was hired to head the alternative program in School D. The director and his newly hired alternative staff began work in the fall of 1973 to plan for the development of an alternative education program for School D. The alternative program began functioning the spring of 1974.

The ultimate purpose of the change effort was to eliminate the need for an alternative program altogether. The program's director explained,

> My charge is that in five years to have 80 percent of the people doing the same things we are on a similar scale within the regular classroom. Theoretically, we think that there will not be a need for an alternative school here because we'll have a staff geared to handle the options that kids need.

School D's alternative program staff was conscious of the nature of their relationship with the school's regular education staff. The program director early identified several stages that he viewed as predictable and unavoidable:

> One, there is a polarizing of staff. I think that's necessary for staff and I think it's valuable. You have a "we-they" kind of dichotomy. Some are still definitely polarized against us, despise us, and they'll always be that way probably. We don't even worry about them.
>
> Then you move into another stage of a kind of quiet tolerance. They're still threatened by us, but they're not overly opposed. They just don't bother us. They don't understand; they're afraid they're going to understand.

> Then you move into a stage where people begin to accept you as part of the institution. You're there and they just admit it and they begin to buy into some cooperative kinds of ventures. They're no longer threatened by our existence. They begin to see some ways that they can begin to use some of our resources. They begin to intermingle.

The alternative program director estimated that, after three years of the program's existence, there were people in each of the above stages and that approximately 40 percent of the regular school faculty was either acquiring or willing to acquire some assistance in expanding their teaching techniques.

Since a major purpose of the alternative project was to in-service existing staff, interaction between the alternative program and the regular staff was highly planned--particularly in the first year of the program's existence. Alternative program staff interviewed the entire faculty to gain their perceptions of alternative education. Alternative staff members received training in conflict resolution techniques so that they could respond to personal and professional attack without becoming defensive.

More recently, alternative staff members operated as resource persons providing assistance to other staff who might be interested in using some of the instructional models developed in the alternative program.

Organizational Arrangements

School D had one principal and four assistant principals, each responsible for a particular aspect of the school's operations.

The instructional staff operated within a departmental structure. Department heads were considered to be quasi-administrators and were provided with released time for evaluation and curriculum development responsibilities.

School D's alternative program operated as a school-within-a-school. The program had nine full-time and three part-time teachers and served 100 full-time and 100 part-time students. The program had at least one full-time teacher in each of the core subject areas of English, social studies, science, and math. The alternative program director was directly responsible for the program's operation and functioned as a principal of a small high school with staffing, evaluation, discipline, and program development responsibilities.

The school-within-a-school organizational arrangement was perceived to be a positive feature by the alternative program staff. Teachers noted that the structure had contributed to a sense of identity and a more personalized, small-school environment. Teachers and students knew each other and addressed each other on a first name basis.

The program director noted that the positive interpersonal relationships facilitated by the school-within-a-school arrangement were causing some to reconsider the original plan to phase out the separate structure. In his words,

> I have the feeling beyond that that there will be a need from a personalized point of view for a

> group of kids who want to cluster together academically and socially, that the regular program can't duplicate. So we may keep intact a program of 100 kids.

The alternative program's unit structure was also perceived as facilitating the program's instructional program as it promoted teacher coordination and cooperation essential to successful operation of the community based experiential learning model.

Instructional Elements

School D's alternative program was designed to serve two types of students not well served by the school's regular educational program--the highly motivated, socially aggressive, gifted student; and the potential drop-out with needs for social and/or academic survival. One of the school's assistant principals explained,

> The alternative program helps self-directed kids who have a degree of self-discipline and maturity about them that has nothing to do with their level of intelligence or ability. There are kids succeeding on the lower and upper end of the spectrum who never knew how high was up until they got into the alternative program, because in our traditional program we tend to put ceilings on people and the brightest kids in the school certainly don't need ceilings. They've gotten in the habit of asking, "How high do I have to jump to make an A?" and the teacher tells them how high they have to jump and that's all the higher they jump. But in the alternative program the teacher asks, "How high can you jump?"
>
> I've seen kids on the upper end of the spectrum accomplish and achieve things they never would have dreamed of had they been kept in a classroom five days a week for a semester. They've made the contacts, taken the responsibility; they've used their creativity.

A number of individuals both within and outside the program commented that the alternative program had the flexibility really to challenge the gifted student, in particular. One of the school's regular teachers stated that the alternative program was threatening to nonalternative teachers because they feared that they would lose their top students to the program.

Independent Study. School D's alternative program sought to encourage self-direction and responsibility in its students. The independent study learning mode was accordingly emphasized to a great degree. This was reflected by the fact that most classes met only two or three times per week when similar regular education met five times a week. The expectation was that alternative students needed to meet less frequently than their peers because they were doing more (study, research, community learning) on their own outside of the traditional classroom setting.

Each alternative program teacher attempted to meet with each of his students individually for 10 to 15 minutes to monitor the student's progress.

Alternative program staff noted that independent study had been de-emphasized somewhat in the last year or two. In order to guarantee that students would have sufficient opportunities to interact with others they were now required to take at least two seminars each semester. Individual teachers indicated that they had altered their instructional strategies to include more group

lectures and small group discussions. Nevertheless, the independent study mode was easily the predominant learning mode employed in most alternative program classes.

Community Learning Experiences. The alternative program emphasized self-directed, experiential learning experiences in community settings. Students were required to incorporate a community learning experience into at least one of their courses each year. Thursday was "Community Day" in the alternative program. Teachers were restricted from scheduling activities that would require attendance on that day. The program had both an urban and a rural center which students could use as a base for their studies while working in the community.

Experiential learning opportunities were enhanced by the "Intensive," a program whereby students were able to leave the campus for extended periods of time for concentrated study on a particular topic. One student, for example, studied the United Nations in New York City. Others studied electoral politics campaigning in the New Hampshire presidential primary.

Teachers noted that the community learning program was enthusiastically received by students, parents and community members as well. Some regular education teachers questioned whether students were engaged in meaningful study while engaged in community learning experiences.

Individualization of Instruction. Teachers in the alternative program attempted to individualize instruction wherever possible. Alternative courses had the same minimal competencies as regular education courses. Once these objectives were achieved, however, students were given the opportunity to choose from additional objectives or develop their own. In come cases, where students scored well enough on a preliminary diagnostic test, they were allowed to develop their own related course. Objectives were also altered for those students incapable of meeting them.

While the student's learning objectives were somewhat fixed, each was encouraged to assume some responsibility for determining how the objectives would be accomplished. Students and teachers negotiated a learning contract which specified which objectives were to be combined with others and which activities and materials would be used to accomplish them.

Alternative program teachers were fairly sophisticated in the process of individualizing instruction. One described his role as follows:

> I see myself as a diagnostician, finding out where people are through the use of standardized and teacher created instruments; then as a kind of prescriber in a sense of hooking up materials, making communication links with some community resource people; then contract negotiation--specifying specific learning objectives and learning activities in a counseling kind of format and setting with individual students.

Alternative program teachers believed that they were individualizing instruction in their classes to the extent that it was humanly possible.

Family Groups. Each alternative program teacher was an advisor to a family group of 12 to 20 students and their parents. The family group represented an effort to build an affective component into the program.

Each teacher met with his family group students as a group 50 minutes each week to provide students with the opportunity to share their problems and concerns. The complete family group met once each month in an informal setting. The family group was viewed as an effective tool for personalizing the environment. A number of teachers also saw it as an effective communication vehicle between the school and the home.

Student Decision Making. The alternative program provided students with a number of decision-making opportunities not available to other students in the school. Students had considerable input into their own curriculum design. They were able to determine the rate and method by which they would attain course objectives. Some were allowed to select their own objectives and, with parental approval, could design their own course. Students were also encouraged to explore and make their own arrangements for community learning experiences.

Students in the alternative program were also invested with a degree of formal decision-making power. Significant internal program issues were voted on in the alternative program's monthly "town meetings." The one-man-one-vote system of representation

meant that the program's students controlled the vast majority of votes. One teacher noted that some students had become very active in town meeting politics seeking to organize the various family groups.

Alternative students also had access to another decision-making vehicle known as the judicial hearing in which significant, controversial educational issues within the program were publicly put on trial. While the verdicts were delivered by jurors from outside the program, it was the students who bore the responsibility for researching and presenting the case for both sides.

Alternative students played an active role in student disciplinary matters as well. Part of the responsibility of being an alternative program student was the obligation of serving on disciplinary hearings when so requested. Disciplinary hearings were run by an adult but the decision and form of punishment were determined by alternative program students available at the time a hearing was needed.

Leadership

Respondents at School D failed to link the development of the school's alternative program with the leadership of the school principal. A number of staff members had difficulty associating the change effort with any administrator other than the individual who was hired to develop and direct the alternative program. The

only other individual frequently mentioned as having been instrumental in the early stages of the program's development was the assistant principal primarily responsible for curriculum and staff development.

Participative Leadership Behavior. The participative leadership style of School D's principal set the tone for the entire school. Decision-making power was dispersed throughout the school. The principal acted as a coordinator, delegating major areas of responsibility to his four assistant principals. Department chairmen were given sufficient authority to run their departments. The director of the alternative program was given a wide degree of latitude as well.

These administrators, in turn, engaged in a substantial amount of participative leadership behavior in dealing with teachers. One of the school's counselors described the trusting attitude she encountered when working with the school's administrators:

> I have been made to feel, "You're certainly capable or you wouldn't be here in the first place. So, do your job." And that really pulls it out of you. You do your best because it's expected.

Another teacher commented similarly:

> The atmosphere is, "You are a professional. You were hired because of your qualities, because you are exceptional. Every member of this staff is exceptional. We, therefore, are giving you the responsibility that you should be able to carry."

Respondents noted that teachers in School D were given a good deal of academic freedom. One teacher commented on the high degree

of involvement they were given in textbook adoption. One of the school's assistant principals explained the rationale for the school's emphasis on shared decision making:

> I think the reason it happens is probably a basic philosophy of where should change originate if it's going to be effective. We believe that the only real and effective changes are going to occur at the point where they have to be implemented--which means, in most cases, that a teacher has to do something, has to grow, has to change.
>
> It's not adequate for the principal to tell the teacher. The principal ought to assume the responsibility for sharing and suggesting and providing opportunities for teachers to pursue new ideas, but the principal cannot implement those things. . . . By design our administrative team tries to put teachers in the position to come up with the ideas and develop the program and implement it.

A participatory management design was employed in School D's alternative program as well. The model called for input from students, staff, and the director identifying areas of advisory and decision-making responsibility for each.

Instrumental Leadership Behavior. School D's administrators were seen as exhibiting a good deal of instrumental leadership behavior, as well. One of the teachers commented, "He runs on the fact that you have a role description and you'd better follow your role."

Another teacher stated that the principal made sure to hold people accountable for their actions. In his words, "If you're wrong on something you're going to be backed in public, but you're

going to have to face up to it somewhere along the line and he doesn't let you off the hook."

School D's management-by-objectives system helped to structure roles and relationships. Under the system each administrator was responsible to his superior for accomplishing specific, mutually agreed upon goals and objectives. The system was also utilized in the alternative program where each teacher was responsible to the program director.

Supportive Leadership Behavior. School D's teachers commented on the supportive nature of their administrators. One teacher attributed the relative lack of teacher complaints to the sensitive nature of the administrative staff. Alternative program teachers made reference to their director's ability to work with people.

Other Factors Bearing on the Implementation of Individualized Programs

In addition to the instructional, organizational, and leadership factors described previously, the following factors were perceived as bearing on the implementation of the individualized programs in the school studied: demands on teachers and inservice training.

Demands on teachers. One factor impeding the individualization of instruction in School D's alternative program was the strenuous demands made upon the teaching staff. Administrators noted that successful participation in the alternative program required an

extraordinary time commitment and the acquisition of a considerable amount of skill on the part of teaching staff.

Teachers commented that participation in the program was a rewarding growth experience but that it was often very frustrating and time consuming. One teacher was forced to leave the program with mental problems after only a semester in the program. It was noted that staff "burn out" seemed to be greater for first-year participants than for teachers in their second or third year in the program. Teachers appeared to acquire necessary skills and systematize their efforts after some experience in the program.

Inservice Training. Appropriate use of inservice opportunities was an additional factor facilitating the individualization of instruction in School D's alternative program. The alternative program staff was given a full semester to study other alternative programs and develop their own program. The staff visited other programs, conferred with external consultants and analyzed the perceptions of the regular education staff regarding alternative education before building their own program. The time spent in building an extensive alternative system contributed to the staff's sense of ownership and facilitated implementation.

Questionnaire Data

A total of 11 people responded to the IGE/Secondary questionnaire in School D. Table 3.7 presents the background data on the respondents.

Table 3.8 presents the means and standard deviations for ratings of desirability and implementation for School D.

Desirability. The mean ratings for desirability ranged from 4.38 to 5.52 in School D. The total mean rating was 5.02. The administration component was rated as "somewhat desirable." The other eight components were rated as "desirable." The community learning experience component had the highest desirability rating in School D.

Implementation. The mean ratings for implementation in School D ranged from 2.77 to 3.70. The total mean rating for implementation was 3.33. The organization, curricular materials, evaluation, and research and development components were rated as having "some implementation." The administration, instructional programming, home-school-community relations, community learning experiences, and facilitative environemnts components were rated as having "adequate implementation" in School D.

TABLE 3.7

RESPONDENTS' BACKGROUND DATA: SCHOOL D

Position		Subject Taught	
Teacher	8	English	2
		Social Studies	2
Department Head	0	Science	2
		Mathematics	3
Unit Leader	0	Vocational Education	1
		Special Education	0
Counselor	2	English/Social Studies	0
		Physical Education	0
Administrator	1	Art/Music	1
		Blank	1

Years of Experience in Present Position

Years	Teacher	Department Head	Unit Leader	Counselor	Administrator
0-4	4				1
5-8	3				
9-12				1	
13-16					
17-20	1				
21-30					
31-50	1				

Grade Level Taught		Teaming			
Grades 9-10	0	No	Single Subject	Two Subjects	Three or More Subjects
Grades 11-12	1	4	1	2	2
Combination	9	Blank			
Blank	1	2			

N = 11

TABLE 3.8

MEANS AND STANDARD DEVIATIONS FOR RATINGS OF DESIRABILITY AND IMPLEMENTATION ACCORDING TO NINE COMPONENTS AND TOTAL OF IGE/SECONDARY: SCHOOL D

	Desirability		Implementation	
Component	Mean	SD	Mean	SD
Administration of the School	4.38	.91	3.61	.64
Organization for Instruction	5.04	.80	2.77	.54
Instructional Programming	4.97	.64	3.55	.73
Curricular Materials	5.16	.64	3.11	1.02
Evaluation for Instruction	4.92	.85	3.02	.66
Home-School-Community Relations	5.36	.66	3.64	.52
Community Learning Experiences	5.52	.60	3.70	.84
Facilitative Environments	5.36	.60	3.66	1.01
Research and Development	5.15	.66	3.30	.74
Total	5.02	.57	3.33	.52

N = 11

Questionnaire Analysis

School Desirability Ratings of IGE/Secondary

Table 3.9 presents the means and significance of differences among means of the nine components and total desirability ratings of the four schools for all staff members who responded to the IGE/Secondary questionnaire. Table 3.9 indicates that all schools rated each of the nine components and the total IGE/Secondary questionnaire as between "somewhat desirable" and "highly desirable." Significant differences were noted at the .05 level among the means of the curricular materials, home-school-community relations, community learning experiences, and facilitative environments components and total score for the four schools' ratings of desirability. Table 3.9 does not present significant differences between particular schools. The results of such comparisons may be found in Table 3.10.

Table 3.10 presents levels of significance .05 or less for pairs of mean desirability ratings of the four schools for each of the nine IGE/Secondary components and the total desirability score. As noted in Table 3.10, there were no significant differences in the desirability ratings of the administration component between any of the pairs of combined schools.

School D rated the desirability of the organizational component significantly higher than did School C.

TABLE 3.9

MEANS AND SIGNIFICANCE OF DIFFERENCES AMONG MEANS OF NINE COMPONENTS AND TOTAL DESIRABILITY RATINGS FOR FOUR SCHOOLS

Component	Schools				Level of Significance
	A	B	C	D	
Administration of the School	4.87	4.60	4.61	4.38	.10
Organization for Instruction	4.65	4.70	4.44	5.04	.09
Instructional Programming	4.80	4.64	4.58	4.97	.16
Curricular Materials	4.97	4.59	4.86	5.16	.05
Evaluation for Instruction	4.58	4.49	4.68	4.92	.48
Home-School-Community Relations	5.29	4.91	4.68	5.36	.01
Community Learning Experiences	5.37	4.82	4.53	5.52	.01
Facilitative Environments	4.97	4.97	4.67	5.37	.02
Research and Development	5.07	4.69	4.79	5.15	.05
Total	4.86	4.68	4.60	5.02	.04

N = 200

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TABLE 3.10

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN DESIRABILITY RATINGS FOR PAIRS OF COMBINED SCHOOLS

Component	Schools											
	A vs. B		A vs. C		A vs. D		B vs. C		B vs. D		C vs. D	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Administration of the School	1.83	NS	1.90	NS	1.91	NS	.06	NS	.85	NS	.91	NS
Organization for Instruction	.33	NS	1.46	NS	1.43	NS	1.71	NS	1.22	NS	2.21	.03
Instructional Programming	1.22	NS	1.81	NS	.73	NS	.47	NS	1.39	NS	1.69	NS
Curricular Materials	2.48	.01	.80	NS	.72	NS	1.77	NS	2.08	.04	1.14	NS
Evaluation for Instruction	.51	NS	.61	NS	1.11	NS	1.09	NS	1.38	NS	.80	NS
Home-School-Community Relations	2.67	.01	4.56	.01	.27	NS	1.57	NS	1.75	NS	2.67	.01
Community Learning Experiences	3.24	.01	5.37	.01	.49	NS	1.73	NS	2.29	.02	3.32	.01
Facilitative Environments	.03	NS	2.14	.03	1.46	NS	1.97	.05	1.45	NS	2.60	.01
Research and Development	2.44	.02	1.93	NS	.31	NS	.65	NS	1.67	NS	1.33	NS
Total	.14	NS	2.39	.02	.79	NS	.72	NS	1.61	NS	2.05	.04

There was no significant difference in the desirability ratings of the instructional programming component between any of the pairs of combined schools.

Schools A and D rated the desirability of the curricular materials component significantly higher than School B.

There were no significant differences in desirability ratings of the evaluation component between any of the pairs of combined schools.

School A rated the desirability of the home-school-community relations component significantly higher than Schools B and C. School D rated the desirability of this component significantly higher than School C. Schools A and D rated the desirability of the community learning experiences component significantly higher than Schools B and C.

School C rated the desirability of the facilitative environments component significantly lower than Schools A, B, and D. School A rated the desirability of the research and development component significantly higher than School D. Table 3.10 also indicates that School A's and D's desirability ratings of the total IGE/Secondary questionnaire were significantly higher than School C's.

In summary, no school consistently rated the desirability of the individual IGE/Secondary components significantly higher or lower than did the other schools. Schools A and D rated the desirability of four components significantly higher than at least one

other school. School C rated the desirability of five components significantly lower than another school. School B rated the desirability of four components significantly lower than another school.

Schools A and D total IGE/Secondary questionnaire ratings were significantly higher than School C's.

School Implementation Ratings of IGE/Secondary

Table 3.11 presents the means and significance of differences among means of the nine components and total implementation ratings of the four schools. The range for the implementation ratings of the nine components for all four schools was between "no implementation" and "adequate implementation."

Significant differences at the .05 level were found among the means of the administration, organization, instructional programming, home-school-community relations, community learning experiences, and facilitative environments components and total IGE/secondary questionnaire implementation ratings.

Table 3.12 presents levels of significance .05 or less for pairs of mean implementation ratings of the four schools for each of the nine IGE/Secondary components and the total implementation score.

School A rated the implementation of the administration component significantly higher than Schools B and C.

School B rated the implementation of the organization component significantly higher than Schools C and D. School A rated the

TABLE 3.11

MEANS AND SIGNIFICANCE OF DIFFERENCES AMONG MEANS OF NINE COMPONENTS AND TOTAL IMPLEMENTATION RATINGS FOR FOUR SCHOOLS

Component	Schools				Level of Significance
	A	B	C	D	
Administration of the School	4.14	3.62	3.53	3.61	.01
Organization for Instruction	3.28	3.56	2.90	2.77	.01
Instructional Programming	3.42	3.33	2.77	3.55	.01
Curricular Materials	3.30	3.13	2.88	3.11	.15
Evaluation for Instruction	2.76	2.96	2.55	3.02	.11
Home-School-Community Relations	3.98	3.26	2.96	3.64	.01
Community Learning Experiences	4.18	3.35	2.56	3.70	.01
Facilitative Environments	3.62	3.96	3.34	3.66	.01
Research and Development	3.27	3.04	2.94	3.30	.24
Total	3.49	3.38	2.91	3.33	.01

N = 200

TABLE 3.12

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED SCHOOLS

Component	Schools											
	A vs. B		A vs. C		A vs. D		B vs. C		B vs. D		C vs. D	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Administration of the School	3.25	.01	4.07	.01	1.88	NS	.55	NS	.04	NS	.27	NS
Organization for Instruction	1.61	NS	2.38	.02	1.66	NS	3.88	.01	2.52	.01	.41	NS
Instructional Programming	.57	NS	4.38	.01	.43	NS	3.55	.01	.74	NS	2.74	.01
Curricular Materials	.86	NS	2.31	.02	.53	NS	1.30	NS	.04	NS	.69	NS
Evaluation for Instruction	1.10	NS	1.23	NS	.81	NS	2.29	.02	.18	NS	1.47	NS
Home-School-Community Relations	4.46	.01	6.82	.01	1.20	NS	1.89	NS	1.31	NS	2.40	.02
Community Learning Experiences	4.48	.01	9.53	.01	1.48	NS	4.38	.01	1.05	NS	3.54	.01
Facilitative Environments	1.84	NS	1.62	NS	.13	NS	3.39	.01	.91	NS	.98	NS
Research and Development	1.20	NS	1.91	NS	.09	NS	.58	NS	.76	NS	1.10	NS
Total	.78	NS	4.56	.01	.65	NS	3.50	.01	.21	NS	1.74	NS

implementation of this component significantly higher than School C.

School C rated the implementation of the instructional programming component significantly lower than Schools A, B, and D.

School A rated the implementation of the curricular materials component significantly higher than School C.

School B rated the implementation of the evaluation component significantly higher than School C.

School A rated the implementation of the home-school-community relations component significantly higher than Schools B and C. School D rated the implementation of this component significantly higher than School C.

School C rated the implementation of the community learning experiences component significantly lower than Schools A, B, and D. School A rated the implementation of this component significantly higher than School B.

School B rated the implementation of the facilitative environments component significantly higher than School C. There were no significant differences in the implementation ratings of the research and development component between any of the pairs of combined schools.

Schools A and B total implementation ratings were significantly higher than School C's.

Table 3.12 indicates that School A rated the implementation of seven of the nine IGE/Secondary components significantly higher

than one or more of the other schools. School B rated the implementation of six of the components significantly higher than at least one other school. School C rated the implementation of eight of the nine IGE/Secondary components significantly lower than at least one of the other schools in the survey. Schools A and B had significantly higher total implementation ratings than School C.

Desirability Ratings of IGE/Secondary by Position

Table 3.13 presents the means and the significance of differences among means of the nine components and total desirability ratings for combined groups of teachers, department heads, unit leaders, counselors, and administrators. Table 3.13 indicates that the range for desirability ratings of the nine components for all five positions was between "somewhat desirable" and "highly desirable."

Significant differences were found at the .05 level among the means of desirability for six of the nine components for the five positions studied. Differences between the positions are presented in Tables 3.14 to 3.23. These tables present levels of significance of .05 or less for pairs of mean desirability ratings of the five positions for each of the nine IGE/Secondary components and the total desirability score.

Table 3.14 indicates that administrators rated the desirability of the administration component significantly higher than

TABLE 3.13

MEANS AND SIGNIFICANCE OF DIFFERENCES AMONG MEANS OF NINE COMPONENTS AND TOTAL DESIRABILITY RATINGS FOR COMBINED GROUPS OF TEACHERS, DEPARTMENT HEADS, UNIT LEADERS, COUNSELORS, AND ADMINISTRATORS

Component	Teachers (N = 156)	Department Heads (N = 14)	Unit Leaders (N = 9)	Counselors (N = 11)	Administrators (N = 6)	Level of Significance
Administration of the School	4.64	4.38	5.00	5.11	5.39	.04
Organization for Instruction	4.62	3.90	4.80	5.03	5.08	.01
Instructional Programming	4.68	4.22	5.00	5.02	4.90	.05
Curricular Materials	4.85	4.20	5.14	5.04	5.04	.02
Evaluation for Instruction	4.56	4.06	5.22	5.05	5.08	.01
Home-School-Community Relations	4.95	4.61	5.18	5.51	5.10	.13
Community Learning Experiences	4.94	4.52	4.82	5.15	5.11	.48
Facilitative Environments	4.88	4.21	5.03	5.39	5.21	.01
Research and Development	4.87	4.36	5.17	5.15	5.11	.08
Total	4.72	4.20	5.00	5.10	5.06	.01

TABLE 3.14

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN DESIRABILITY RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 1 (ADMINISTRATION OF THE SCHOOL)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	1.19	NS						
Unit Leaders	1.32	NS	1.84	NS				
Counselors	1.88	NS	2.28	.02	.30	NS		
Administrators	2.27	.03	2.62	.01	.94	NS	.71	NS

TABLE 3.15

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN DESIRABILITY RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 2 (ORGANIZATION FOR INSTRUCTION)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	3.15	.01						
Unit Leaders	.61	NS	2.55	.01				
Counselors	1.58	NS	3.41	.01	.63	NS		
Administrators	1.33	NS	2.93	.01	.65	NS	.12	NS

TABLE 3.16

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN DESIRABILITY RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 3 (INSTRUCTIONAL PROGRAMMING)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	2.32	.02						
Unit Leaders	1.34	NS	2.59	.01				
Counselors	1.56	NS	2.81	.01	.06	NS		
Administrators	.75	NS	1.96	NS	.28	NS	.35	NS

TABLE 3.17

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN DESIRABILITY RATINGS FOR PAIRS OF COMBINED POSTIONS: COMPONENT 4 (CURRICULAR MATERIALS)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	2.94	.01						
Unit Leaders	1.04	NS	2.75	.01				
Counselors	.74	NS	2.60	.01	.28	NS		
Administrators	.56	.NS	2.16	.03	.23	NS	.01	NS

TABLE 3.18

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN DESIRABILITY RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 5 (EVALUATION FOR INSTRUCTION)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	1.97	.05						
Unit Leaders	2.14	.03	3.00	.01				
Counselors	1.74	NS	2.72	.01	.42	NS		
Administrators	1.27	NS	2.16	.03	.28	NS	.06	NS

TABLE 3.19

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN DESIRABILITY RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 6 (HOME-SCHOOL-COMMUNITY RELATIONS)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	1.45	NS						
Unit Leaders	.83	NS	1.62	NS				
Counselors	2.20	.03	2.71	.01	.89	NS		
Administrators	.46	NS	1.22	NS	.18	NS	.98	NS

TABLE 3.20

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN DESIRABILITY RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 7 (COMMUNITY LEARNING EXPERIENCES)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	1.50	NS						
Unit Leaders	.36	NS	.69	NS				
Counselors	.70	NS	1.58	NS	.76	NS		
Administrators	.43	NS	1.22	NS	.57	NS	.08	NS

TABLE 3.21

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN DESIRABILITY RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 8 (FACILITATIVE ENVIRONMENTS)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	2.93	.01						
Unit Leaders	.53	NS	2.34	.02				
Counselors	2.01	.05	3.59	.01	.99	NS		
Administrators	.96	NS	2.50	.01	.42	NS	.45	NS

TABLE 3.22

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN DESIRABILITY RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 9 (RESEARCH AND DEVELOPMENT)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	2.22	.03						
Unit Leaders	.98	NS	2.20	.03				
Counselors	1.03	NS	2.31	.02	.04	NS		
Administrators	.69	NS	1.86	NS	.12	NS	.09	NS

TABLE 3.23

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN DESIRABILITY RATINGS FOR PAIRS OF COMBINED POSITIONS: TOTAL

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	2.91	.01						
Unit Leaders	1.29	NS	2.94	.01				
Counselors	1.97	.05	3.54	.01	.38	NS		
Administrators	1.30	NS	2.77	.01	.18	NS	.15	NS

teachers. Administrators and counselors rated this component significantly higher than department heads.

As indicated in Table 3.15, department heads rated the desirability of the organization component significantly lower than did teachers, unit leaders, counselors, and administrators.

As indicated in Table 3.16, teachers, unit leaders, and counselors rated the desirability of the instructional programming component significantly higher than did department heads.

As indicated in Table 3.17, department heads rated the desirability of the curricular materials component significantly lower than did teachers, unit leaders, and counselors.

As indicated in Table 3.18, department heads rated the desirability of the evaluation component significantly lower than did teachers, unit leaders, counselors, and administrators. Unit leaders rated this component significantly higher than did teachers.

As Table 3.19 indicates, counselors rated the desirability of the home-school-community relations component significantly higher than did teachers and department heads.

As Table 3.20 indicates, there were no significant differences in the desirability ratings of the community learning experiences component between any of the pairs of combined positions.

As indicated in Table 3.21, teachers, unit leaders, counselors, and administrators rated the desirability of the facilitative environments component significantly higher than did department

heads. Counselors also rated the desirability of this component significantly higher than did teachers.

As Table 3.22 indicates, department heads rated the desirability of the research and development component significantly lower than did teachers, unit leaders, and counselors.

Table 3.23 indicates that department heads rated the desirability of the total IGE/Secondary questionnaire significantly lower than did teachers, unit leaders, counselors, and administrators. Counselors rated the desirability of the questionnaire significantly higher than did teachers.

In summary, Tables 3.18 to 3.23 indicate that department heads rated the desirability of eight of the nine IGE/Secondary components significantly lower than at least one other position. Department heads' desirability ratings were significantly lower than those of three or more positions on seven of the nine components. Department heads' ratings for desirability of the total IGE/Secondary questionnaire were significantly lower than the other four positions studied.

Tables 3.14 to 3.23 also indicate that counselors rated the desirability of eight of the nine components significantly higher than at least one other position. Moreover, counselors constituted the only position to rate the desirability of the total IGE/Secondary questionnaire significantly higher than more than one position.

Implementation Ratings of IGE/Secondary by Position

Table 3.24 shows the means and significance of differences among means of nine components and total implementation ratings for combined groups of teachers, department heads, unit leaders, counselors, and administrators. At the .05 level of significance, significant differences were seen among the means of the administrative and evaluation components and the total IGE/Secondary questionnaire.

Differences in the mean component implementation ratings between teachers, department heads, unit leaders, counselors, and administrators are presented in Tables 3.25 to 3.34. These tables present t values and levels of significance of .05 or less for pairs of combined positions for each of the nine IGE/Secondary components.

As indicated in Table 3.25, unit leaders rated the implementation of the administration component significantly higher than did teachers and department heads. Counselors rated the implementation of this component significantly higher than did teachers.

As indicated in Table 3.26, administrators, counselors, and unit leaders rated the implementation of the organization component significantly higher than did teachers. Administrators and unit leaders also rated the implementation of this component significantly higher than did department heads.

As indicated in Table 3.27, administrators rated the implementation of the instructional programming component significantly higher than did teachers and department heads.

TABLE 3.24

MEANS AND SIGNIFICANCE OF DIFFERENCES AMONG MEANS OF NINE COMPONENTS AND TOTAL IMPLEMENTATION RATINGS FOR COMBINED GROUPS OF TEACHERS, DEPARTMENTS HEADS, UNIT LEADERS, COUNSELORS, AND ADMINISTRATORS

Component	Teachers (N = 156)	Department Heads (N = 14)	Unit Leaders (N = 9)	Counselors (N = 11)	Administrators (N = 6)	Level of Significance
Administration of the School	3.69	3.68	4.50	4.27	4.03	.04
Organization for Instruction	3.07	3.10	4.15	3.84	4.03	.01
Instructional Programming	3.13	2.99	3.67	3.51	3.97	.06
Curricular Materials	3.04	3.05	3.78	3.43	3.75	.10
Evaluation for Instruction	2.67	2.77	3.46	3.18	3.76	.01
Home-School-Community Relations	3.38	3.46	3.78	3.82	3.77	.36
Community Learning Experiences	3.35	3.48	3.04	3.55	3.83	.86
Facilitative Environments	3.58	3.76	4.06	3.92	3.79	.24
Research and Development	3.07	3.00	3.71	3.17	3.44	.58
Total	3.19	3.18	3.84	3.66	3.90	.01

TABLE 3.25

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 1 (ADMINISTRATION OF THE SCHOOL)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	.03	NS						
Unit Leaders	2.52	.01	2.08	.04				
Counselors	2.11	.04	1.65	NS	.55	NS		
Administrators	.92	NS	.80	NS	.98	NS	.54	NS

TABLE 3.26

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 2 (ORGANIZATION FOR INSTRUCTION)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	.12	NS						
Unit Leaders	3.17	.01	2.51	.01				
Counselors	2.62	.01	1.94	NS	.71	NS		
Administrators	2.44	.02	2.01	.05	.25	NS	.39	NS

TABLE 3.27

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 3 (INSTRUCTIONAL PROGRAMMING)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	.54	NS						
Unit Leaders	1.65	NS	1.69	NS				
Counselors	1.32	NS	1.39	NS	.40	NS		
Administrators	2.22	.03	2.20	.03	.60	NS	1.01	NS

TABLE 3.28

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 4 (CURRICULAR MATERIALS)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	.03	NS						
Unit Leaders	1.92	NS	1.55	NS				
Counselors	1.18	NS	.89	NS	.71	NS		
Administrators	1.61	NS	1.35	NS	.06	NS	.59	NS

TABLE 3.29

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 5 (EVALUATION FOR INSTRUCTION)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	.37	NS						
Unit Leaders	2.23	.03	1.59	NS				
Counselors	1.67	NS	1.04	NS	.62	NS		
Administrators	2.45	.02	1.94	NS	.53	NS	1.10	NS

TABLE 3.30

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 6 (HOME-SCHOOL-COMMUNITY RELATIONS)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	.27	NS						
Unit Leaders	1.12	NS	.75	NS				
Counselors	1.46	NS	.94	NS	.11	NS		
Administrators	.96	NS	.66	NS	.02	NS	.12	NS

TABLE 3.31

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 7 (COMMUNITY LEARNING EXPERIENCES)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	.36	NS						
Unit Leaders	.72	NS	.81	NS				
Counselors	.51	NS	.14	NS	.90	NS		
Administrators	.96	NS	.61	NS	1.22	NS	.47	NS

TABLE 3.32

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 8 (FACILITATIVE ENVIRONMENTS)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	.62	NS						
Unit Leaders	1.31	NS	.69	NS				
Counselors	1.06	NS	.40	NS	.31	NS		
Administrators	.50	NS	.07	NS	.50	NS	.24	NS

TABLE 3.33

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED POSITIONS: COMPONENT 9 (RESEARCH AND DEVELOPMENT)

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	.24	NS						
Unit Leaders	1.62	NS	1.50	NS				
Counselors	.29	NS	.39	NS	1.08	NS		
Administrators	.88	NS	.89	NS	.47	NS	.52	NS

TABLE 3.34

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED POSITIONS: TOTAL

Position	Teachers		Department Heads		Unit Leaders		Counselors	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Department Heads	.03	NS						
Unit Leaders	2.36	.02	1.95	NS				
Counselors	1.97	.05	1.55	NS	.52	NS		
Administrators	2.24	.03	1.93	NS	.14	NS	.62	NS

As indicated in Table 3.28, there were no significant differences in implementation ratings of the curricular materials component between any of the pairs of combined positions.

As indicated in Table 3.29, administrators and unit leaders rated the implementation of the evaluation component significantly higher than did teachers.

Tables 3.30 through 3.33 indicate that there were no significant differences in the implementation ratings of the home-school-community relations, community learning experiences, facilitative environments, and research and development components between any of the pairs of combined positions.

Table 3.34 indicates that unit leaders, counselors, and administrators rated the implementation of the total IGE/Secondary questionnaire significantly higher than did teachers.

In summary, Tables 3.25 through 3.34 show that significant differences in implementation ratings between pairs of combined positions were found in four of the nine components. Teachers rated the implementation of those components significantly lower than at least one other position. Moreover, teacher implementation ratings for the total IGE/Secondary questionnaire were significantly lower than those of unit leaders, counselors, and administrators.

Respondent Background Data and Ratings of IGE/Secondary

Each respondent completing the IGE/Secondary questionnaire was asked to provide background data concerning years of experience,

subject taught, academic grade level taught, and teaming.

Tables 3.35 to 3.50 present total mean desirability and implementation ratings of the IGE/Secondary questionnaire and levels of significance .05 or less based upon respondent background data.

Years of Experience. Table 3.35 indicates that there was no significant difference in respondents' total desirability ratings of IGE/Secondary across the experience categories. Table 3.36 indicates that respondents of 0 to 4 years experience rated the desirability of the IGE/Secondary questionnaire significantly higher than did respondents of 13 to 16 and 21 to 30 years of experience. Table 3.37 shows that there was no significant difference in the respondents' total implementation ratings of IGE/Secondary across the experience category. Table 3.38 indicates that respondents of 0 to 4 and 5 to 8 years of experience rated the implementation of the IGE/Secondary questionnaire significantly higher than those with 17 to 20 years of experience.

Subject Taught. As shown in Table 3.39, there were no significant differences in respondent desirability ratings for the total IGE/Secondary questionnaire across the various subject categories. Table 3.40 indicates that physical education teachers rated the desirability of the total IGE/Secondary questionnaire significantly lower than did English, mathematics, and vocational subject teachers.

TABLE 3.35

MEANS AND SIGNIFICANCE OF DIFFERENCES AMONG MEANS OF TOTAL DESIRABILITY RATINGS FOR YEARS OF EXPERIENCE CATEGORIES

	Years of Experience							
N =	0-4 (72)	5-8 (54)	9-12 (34)	13-16 (9)	17-20 (12)	21-30 (13)	31-50 (2)	Level of Significance
Total Desirability	4.87	4.72	4.78	4.33	4.50	4.48	4.50	NS

TABLE 3.36

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN TOTAL DESIRABILITY RATINGS FOR PAIRS OF COMBINED YEARS OF EXPERIENCE CATEGORIES

Years of Experience	0-4		5-8		9-12		13-16		17-20		21-30	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.
5-8	1.35	NS										
9-12	.71	NS	.43	NS								
13-16	2.38	.02	1.66	NS	1.85	NS						
17-20	1.85	NS	1.05	NS	1.28	NS	.60	NS				
21-30	2.04	.04	1.20	NS	1.43	NS	.52	NS	.09	NS		
31-50	.81	NS	.47	NS	.60	NS	.33	NS	.01	NS	.04	NS

TABLE 3.37

MEANS AND SIGNIFICANCE OF DIFFERENCES AMONG MEANS OF TOTAL IMPLEMENTATION RATINGS FOR YEARS OF EXPERIENCE CATEGORIES

	Years of Experience							
N =	0-4 (72)	5-8 (54)	9-12 (34)	13-16 (9)	17-20 (12)	21-30 (13)	31-50 (2)	Level of Significance
Total Implementation	3.40	3.38	3.13	3.09	2.71	3.05	3.71	NS

TABLE 3.38

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN TOTAL IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED YEARS OF EXPERIENCE CATEGORIES

Years of Experience	0-4		5-8		9-12		13-16		17-20		21-30	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.
5-8	.12	NS										
9-12	1.69	NS	1.50	NS								
13-16	1.13	NS	1.06	NS	.14	NS						
17-20	2.86		2.73		1.62	NS	1.12	NS				
21-30	1.51	NS	1.40	NS	.32	NS	.12	NS	1.10	NS		
31-50	.56	NS	.59	NS	1.03	NS	.62	NS	1.70	NS	1.13	NS

TABLE 3.39

MEANS AND SIGNIFICANCE OF DIFFERENCES AMONG MEANS OF TOTAL DESIRABILITY RATINGS FOR SUBJECT MATTER CATEGORIES

Subject	English	Social Studies	Science	Math	Vocational	Special Education	Physical Education	Art/ Music	Level of Significance
N =	(42)	(24)	(16)	(19)	(41)	(8)	(12)	(9)	
Total Desirability	4.91	4.61	4.65	4.85	4.78	4.67	4.21	4.76	NS

TABLE 3.40

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN TOTAL DESIRABILITY RATINGS FOR PAIRS OF COMBINED SUBJECT MATTER CATEGORIES

Subject	English		Social Studies		Science		Math		Vocational		Special Education		Physical Education	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Social Studies	1.90	NS												
Science	1.44	NS	.20	NS										
Math	.36	NS	1.26	NS	.95	NS								
Vocational	1.00	NS	1.04	NS	.69	NS	.44	NS						
Special Education	1.01	NS	.24	NS	.08	NS	.69	NS	.44	NS				
Physical Education	3.38	.01	1.76	NS	1.79	NS	2.74	.01	2.71	.01	1.57	NS		
Art/Music	.66	NS	.62	NS	.43	NS	.36	NS	.06	NS	.30	NS	1.96	NS

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TABLE 3.41

MEANS AND SIGNIFICANCE OF DIFFERENCES AMONG MEANS OF TOTAL IMPLEMENTATION RATINGS FOR SUBJECT MATTER CATEGORIES

Subject	English	Social Studies	Science	Math	Vocational	Special Education	Physical Education	Art/ Music	Level of Significance
N =	(42)	(24)	(16)	(19)	(41)	(8)	(12)	(9)	
Total Implementation	3.35	3.25	3.26	3.37	3.08	3.61	3.11	3.45	MS

TABLE 3.42

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN TOTAL IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED SUBJECT MATTER CATEGORIES

Subject	English		Social Studies		Science		Math		Vocational		Special Education		Physical Education	
	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.	t	Sig.
Social Studies	.50	NS												
Science	.39	NS	.05	NS										
Math	.11	NS	.52	NS	.43	NS								
Vocational	1.56	NS	.81	NS	.77	NS	1.34	NS						
Special Education	.90	NS	1.16	NS	1.07	NS	.75	NS	1.78	NS				
Physical Education	.92	NS	.48	NS	.49	NS	.90	NS	.12	NS	1.42	NS		
Art/Music	.35	NS	.66	NS	.59	NS	.25	NS	1.28	NS	.45	NS	.98	NS

TABLE 3.43

MEANS AND SIGNIFICANCE OF DIFFERENCES AMONG MEANS OF TOTAL DESIRABILITY RATINGS FOR GRADE LEVEL CATEGORIES

	Grade Level			
	9-10	11-12	9-12	Level of
N =	(5)	(48)	(141)	Significance
Total Desirability	4.26	4.64	4.78	NS

TABLE 3.44

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN TOTAL DESIRABILITY RATINGS FOR PAIRS OF COMBINED GRADE LEVEL CATEGORIES

Grade Level	9-10		11-12	
	t	Sig.	t	Sig.
11-12	1.27	NS		
9-12	1.79	NS	1.31	NS

TABLE 3.45

MEANS AND SIGNIFICANCE OF DIFFERENCES AMONG MEANS OF TOTAL IMPLEMENTATION RATINGS FOR GRADE LEVEL CATEGORIES

	Grade Level			
N =	9-10 (5)	11-12 (48)	9-12 (141)	Level of Significance
Total Implementation	3.05	3.23	3.26	NS

TABLE 3.46

$\underline{T}$ VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN TOTAL IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED GRADE LEVEL CATEGORIES

Grade Level	9-10		11-12	
	t	Sig.	t	Sig.
11-12	.49	NS		
9-12	.60	NS	.28	NS

TABLE 3.47

MEANS AND SIGNIFICANCE OF DIFFERENCES AMONG MEANS OF TOTAL DESIRABILITY RATINGS FOR TEAMING CATEGORIES

	No Teaming	Single-Subject Team	Two-Subject Team	Three-or-More-Subject Team	Level of Significance
N =	(124)	(20)	(9)	(28)	
Total Desirability	4.67	4.76	5.13	4.72	NS

TABLE 3.48

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN TOTAL DESIRABILITY RATINGS FOR PAIRS OF COMBINED TEAMING CATEGORIES

Teaming	No Team		Single-Subject Team		Two-Subject Team	
	t	Sig.	t	Sig.	t	Sig.
Single-Subject Team	.57	NS				
Two-Subject Team	2.09	.04	1.45	NS		
Three-or-More-Subject Team	.41	NS	.17	NS	1.66	NS

TABLE 3.49

MEANS AND SIGNIFICANCE OF DIFFERENCES AMONG MEANS OF TOTAL IMPLEMENTATION RATINGS FOR TEAMING CATEGORIES

	No Teaming	Single-Subject Team	Two-Subject Team	Three-or-More-Subject Team	Level Significance
N =	(124)	(20)	(9)	(28)	
Total Implementation	3.10	3.25	3.84	3.54	.01

TABLE 3.50

T VALUES AND LEVELS OF SIGNIFICANCE .05 OR LESS OF MEAN TOTAL IMPLEMENTATION RATINGS FOR PAIRS OF COMBINED TEAMING CATEGORIES

Teaming	No Team		Single-Subject Team		Two-Subject Team	
	t	Sig.	t	Sig.	t	Sig.
Single-Subject Team	.79	NS				
Two-Subject Team	2.64	.01	1.84	NS		
Three-or-More-Subject Team	2.66	.01	1.25	NS	1.01	NS

Table 3.41 indicates that there was no significant difference in respondent total implementation ratings of IGE/Secondary across the subject category. As indicated in Table 3.42, there were no significant differences in the total implementation ratings of the IGE/Secondary questionnaire between any of the pairs of combined subjects.

Grade Level Taught. As indicated in Table 3.43, there were no significant differences in respondent desirability ratings of the total IGE/Secondary questionnaire across the grade level categories. Table 3.44 indicates that there were no significant differences in the total desirability ratings between the grade levels taught.

Table 3.45 shows that there were no significant differences in respondent total implementation ratings across the grade level category. Table 3.46 indicates that there were no significant differences in the total implementation ratings of IGE/Secondary between the grade levels studied.

Teaming. As indicated in Table 3.47, there were no significant differences in respondent total desirability ratings of IGE/Secondary across the teaming category. Table 3.48 indicates that teachers in a two-subject team rated the desirability of the IGE/Secondary questionnaire significantly higher than did teachers who do not teach in a team.

Table 3.49 indicates that there was a significant difference in respondent total implementation ratings of IGE/Secondary across the teaming category. Table 3.50 indicates that respondents on a two-subject team and respondents on a three-or-more-subject team rated the implementation of the IGE/Secondary questionnaire significantly higher than did respondents not involved in a team teaching situation.

In summary, teachers of less than five years experience had significantly higher total desirability ratings than did teachers of 13 to 16 and 21 to 30 years of experience. Similarly, teachers of less than nine years of experience had significantly higher total implementation ratings of IGE/Secondary than did teachers having 17 to 20 years of experience.

Physical education teachers rated the desirability of the IGE/Secondary questionnaire significantly lower than did English, mathematics, and vocational subject teachers.

Respondents on two-subject teams had significantly higher total desirability scores than those not involved in a team. Respondents on two-or-more subject teams had higher total implementation ratings of IGE/Secondary than did respondents not involved in a teaming situation.

Correlation of Desirability and Implementation Ratings

In terms of social systems theory which posits conceptually a relationship between desirability ratings and implementation

ratings, these scales were tested for correlations for the nine components and the total scores. The data are summarized in Appendix E.

Desirability ratings were significantly correlated with implementation ratings for each of the nine components and the total score in School A. Desirability and implementation ratings were significantly correlated for five of the nine components and the total IGE/Secondary questionnaire in School B. Ratings on desirability and implementation were significantly correlated for six of the nine components and the total score in School C. In School D respondent desirability and implementation ratings were significantly correlated for only the instruction programming component.

Total desirability and implementation ratings were significantly correlated in three of the four schools studied.

Summary

This chapter presented and analyzed the data in four sections. The first presented interview and questionnaire data pertaining to each of the four schools studied. The second section presented and analyzed data which compared the four schools' desirability and implementation ratings of IGE/Secondary. The third section presented data which compared desirability and implementation ratings across the positions studied. The fourth section of the chapter analyzed data which compared desirability and implementation ratings of IGE/Secondary from the context of the respondent background data.

CHAPTER IV

SUMMARY, FINDINGS, CONCLUSIONS, AND IMPLICATIONS

This chapter consists of three sections. The first presents an overview of the nature of the study. Section two presents a summary of the study's findings and conclusions. The third section includes the implications of the study for research and practice.

Summary of the Study

Since 1965, the Wisconsin Research and Development Center for Individualized Schooling and several cooperating agencies have been developing and refining an alternative approach to traditional elementary education known as Individually Guided Education (IGE). IGE "is a comprehensive system designed to produce higher educational achievement through providing effectively for differences among students in rate of learning, learning styles, and level of motivation" (Klausmeier, 1971). Efforts to extend IGE to the secondary school level began in 1971. These efforts focused on middle and junior high school. IGE/Secondary was not fully conceptualized in its present form until 1977 (Klausmeier, 1977).

The present conceptualization of IGE/Secondary is based upon concepts similar to those that underlie the elementary model. The major purpose of this study was to determine the level of desirability and the degree of implementation of the proposed secondary

model in high schools that were implementing programs similar to IGE/Secondary. A further purpose was to identify those factors which enhanced or impeded the implementation of those programs similar to IGE/Secondary. It was hoped that the study would contribute to a solid conceptualization of IGE at the secondary level.

The following research questions were posited in this study:

1. How did the staffs of innovative senior high schools which have implemented educational programs similar to IGE rate the desirability of IGE/Secondary schooling and to what extent do they rate its implementation at their schools?
2. Is there a significant difference in the mean ratings of desirability and also of implementation among the sample schools?
3. To what extent do teachers, unit leaders, department heads, counselors, and administrators rate IGE/Secondary as desirable and also as being implemented, and is there a significant difference in their mean ratings?
4. Is there a significant difference in total mean ratings of desirability and also of implementation of IGE/Secondary among teachers according to years of experience in present position, subjects taught, grade levels taught, and involvement in team teaching?

5. What factors facilitate or impede the implementation of programs similar to IGE/Secondary?

The theoretical foundation for this study was social systems theory (Getzels, Lipham, & Campbell, 1968). According to social systems theory, schooling may be conceived as of a social process functioning within a network of interpersonal relationships. The school as a social system consists of two basic dimensions: the nomothetic or institutional dimension, consisting of the roles and expectations necessary for accomplishing the goals of the system; and the idiographic or personal dimension, consisting of the personalities and need-dispositions of the individuals within the system. Behavior is viewed as a function of the interaction between a given institutional role, defined by the expectations attaching to it, and the personality of the role incombent, defined by one's need-dispositions.

According to social systems theory, effective implementation of school programs is dependent upon the degree to which the institutional role expectations are compatible with the individual need-dispositions of the role incumbents. In determining staff perceptions of the desirability of IGE/Secondary schooling, this investigator hoped to determine the level of projected satisfaction with and the degree of implementation of the recent conceptualization of IGE/Secondary.

A second theoretical foundation for this study was that of leadership theory. Effective role performance by the principal has

been found to be a critical factor in the successful adoption and implementation of IGE at the elementary level (Goodridge, 1975). The study employed House's (1971) instrumental, participative, and supportive leadership dimensions in analyzing the relationship between the leadership behavior of the principal and the implementation of innovative programs similar to IGE/Secondary.

A third theoretical perspective for the study was provided by change theory. Change theory provided the researcher with a variety of perspectives useful in identifying factors which facilitated the implementation of educational programs similar to IGE/Secondary in the schools studied.

The population of this study consisted of four innovative high schools. The schools had implemented one or more of the following practices consistent with IGE/Secondary: (a) a shared decision-making structure, (b) team teaching, (c) an advisor system, (d) instructional programming for the individual student, (e) work or other educational experiences in the community, and (f) significant student participation in instructional decision making and school governance. A parallel study was conducted at the junior high school level (Klausmeier, T. J., 1978).

A field study design was used. Both a questionnaire and semi-structured interviews were employed to gather data. The questionnaire was employed to gather data concerning the staffs' perceptions of the desirability and the degree of implementation of IGE/Secondary.

Staff members rated the desirability and implementation of IGE/Secondary with reference to the following six-point scales:

Numerical Score	Verbal Descriptive Indicator
	Desirability Scale
5.50-6.00	Highly Desirable
4.50-5.49	Desirable
3.50-4.49	Somewhat Desirable
2.50-3.49	Somewhat Undesirable
1.50-2.49	Undesirable
1.00-1.49	Highly Undesirable
	Implementation Scale
5.50-6.00	Ideal Implementation
4.50-5.49	Approaching Ideal Implementation
3.50-4.49	Adequate Implementation
2.50-3.49	Some Implementation
1.40-2.49	No Implementation
1.00-1.49	Don't Know

A semistructured interview protocol was developed to elicit staff perceptions of those factors which enhanced or impeded the implementation of programs similar to IGE/Secondary. Interviews were conducted in each school by the researcher with two administrators, one counselor, two unit leaders or department heads, and four teachers. The investigator interviewed administrators and unit leaders or department heads who had relatively high or low scores on the desirability portion of the questionnaire. The teachers interviewed were those whose desirability scores fell toward the top, middle, and bottom of the range and were available to be interviewed.

Major Findings of the Study

The major findings for each of the questions posited in this study are presented here.

1. IGE/Secondary was perceived as a "desirable" system of schooling by the staffs of the four senior high schools studied. The staffs of all four schools generally rated the total system of IGE/Secondary as "desirable."

   The components Instructional Programming, Curricular Materials, Home-School-Community Relations, Supportive Facilitative Environments, and Continuing Research and Development were perceived as "desirable" in each of the four schools. The Administration of the School, Organization of Instruction for Shared Decision Making, and Evaluation for Instructional Decision Making components were seen as "desirable" in three of the four schools and as "somewhat desirable" in one of the other schools. The Community Learning Experiences component was perceived as "highly desirable" in one school and as "desirable" in the other three schools.

2. The total system of IGE/Secondary schooling was perceived as having "some" but less than "adequate" implementation in each of the four schools.

   The level of implementation of the nine IGE/Secondary components was perceived as ranging from "adequate

implementation" for the component, Administration of the School; between "some" to "adequate implementation" for the Organization of Instruction for Shared Decision Making, Instructional Programming for the Individual Student, Home-School-Community Relations, and Community Learning Experiences components; and "some implementation" for the Curricular Materials, Evaluation for Instructional Decision Making, and Continuing Research and Development components.

3. Schools A and B had significantly higher mean total desirability ratings than did School C.

No school consistently rated the desirability of the nine IGE/Secondary components significantly higher or lower than did the other schools. Schools A and D rated the desirability of four components significantly higher than at least one other school. School C rated the desirability of five components significantly lower than another school. School B rated the desirability of four components significantly lower than another school.

4. Schools A and B had significantly higher total implementation ratings than did School C.

School A rated the implementation of seven of the nine IGE/Secondary components significantly higher than one or more of the other schools. School B rated the

implementation of six of the nine components significantly higher than at least one other school. School C rated the implementation of eight of the nine IGE/Secondary components significantly lower than at least one of the other schools in the survey.

Total desirability and implementation ratings were significantly correlated in three of the four schools studied.

5. Teachers, unit leaders, counselors, and administrators rated IGE/Secondary as a "desirable" system of schooling. Department heads rated the total system of IGE/Secondary as "somewhat desirable."

Department heads rated the desirability of eight of the nine IGE/Secondary components significantly lower than at least one other position. Department heads' desirability ratings were significantly lower than those of three or more positions for seven of the nine components. Department heads' ratings for the desirability of the total IGE/Secondary questionnaire were significantly lower than the other four positions studied. Counselors rated the desirability of eight of the nine components significantly higher than at least one other position. Counselors constituted the only position to rate the desirability of the total IGE/Secondary questionnaire significantly higher than more than one position.

6. Teachers and department heads rated the implementation of the total system of IGE/Secondary as having "some implementation." Unit leaders, counselors, and administrators rated the implementation of IGE/Secondary as having "adequate implementation." Teachers' mean implementation ratings for the total system of IGE/Secondary were significantly lower than the other four positions studied. Teachers rated the implementation of four of the nine IGE/Secondary components significantly lower than at least one other position.
7. Regarding the desirability of IGE/Secondary, staff members having less than five years experience in their present position perceived IGE/Secondary to be significantly more desirable than those of 13 to 16 and 21 to 30 years of experience. Physical education teachers perceived IGE/Secondary to be significantly less desirable than English, mathematics, and vocational subject teachers. Staff members involved in a two-subject team perceived IGE/Secondary to be significantly more desirable than those who were not involved in a team teaching situation. There were no significant differences in the total desirability ratings of IGE/Secondary schooling between staff members of various grade levels.

8. Regarding the implementation of IGE/Secondary, staff members having less than nine years of experience in their present position perceived the implementation of IGE/Secondary significantly higher than those with 17 to 20 years of experience. Staff members participating on a two-or-more-subject team perceived the implementation of IGE/Secondary significantly higher than teachers not involved in a team teaching situation. There were no significant differences, however, in the total implementation ratings of IGE/Secondary between any of the pairs of combined subject matter specialties. There also were no significant differences in respondents' total implementation ratings between the grade levels studied.

9. The following factors were identified by those interviewed (see Appendix F) as facilitating the implementation of programs similar to IGE/Secondary schooling:

    a. The leadership of the school principal, including supportive, instrumental, and participative leadership behavior. Participative and supportive leadership behavior were seen as being particularly important in this regard.

    b. The identification of an existing problem or need.

    c. Exposure to alternative solutions to the identified problem through access to outside consultants.

d. Involvement of the school staff in planning efforts.

e. The provision for concentrated periods of time to study alternative solutions and to tailor the selected solution to local needs.

f. Staff commitment to the proposed change prior to implementation.

g. Central office support and encouragement.

h. Inservice sessions to provide training in essential knowledge, skills, and competencies.

i. Student-centered administrators and teachers.

10. The following factors (see Appendix F) were seen as inhibiting the implementation of programs similar to IGE/Secondary:

a. Personal concerns associated with the elimination of the departmental structure.

b. A dislike for team teaching.

c. A lack of participative leadership behavior.

d. The lack of administrative arrangements for shared decision making.

e. The lack of commitment to a proposed change.

f. The lack of sufficient financial support.

g. Labor relations difficulties.

h. The need for increased knowledge and skill on the part of the teaching staff.

11. The following program elements (see Appendix F) were identified as enhancing the individualization of instruction in the schools studied:

    a. Instructional and Advisory Units.

    b. An advisor system which provided individual students immediate contact with adults.

    c. A wide variety of course offerings.

    d. Opportunities for student decision making.

    e. Modular or block scheduling techniques which provided for common planning and teaching time.

    f. Community learning experiences.

    g. Organizational and administrative arrangements that foster shared decision making.

12. A variety of organizational and administrative arrangements were identified as facilitating the individualization of instruction in the schools studied. These included:

    a. A system of advisory teams within a departmental structure.

    b. Alternative schools-within-a-school based upon the learning style of students.

c. Instructional and Advisory Units based upon vocational interest areas functioning alongside a departmental structure.

13. The Instructional and Advisory Unit structure was perceived as:

a. Promoting improved teacher-student, student-student, and teacher-parent relationships.

b. Facilitating teacher coordination and cooperation.

c. Vesting the unit with additional instructional decision-making authority and thereby enhancing the teacher's capacity to vary instruction to meet individual student needs.

d. Requiring participative leadership behavior on the part of the principal.

Conclusions

The following major conclusions can be drawn from the findings of this study:

1. IGE/Secondary was perceived to be a "desirable" system of schooling having "some" but less than "adequate" implementation in each of the four schools studied. Desirability was a necessary but insufficient precondition to the successful implementation of IGE/Secondary.

The finding that four high schools which had implemented programs similar to IGE perceived IGE/Secondary as a desirable form of schooling indicates that IGE/Secondary may be a viable alternative to traditional secondary schooling.

2. Significant differences in the mean desirability and implementation ratings of IGE/Secondary were observed between and among the sample schools. Two schools rated both the desirability and implementation of IGE/Secondary significantly higher than another school. The differences in ratings of desirability and implementation were systematic in each school. The implementation of IGE/Secondary in a particular school was related to its desirability in that school.
3. Staff perceptions of the desirability and implementation of IGE/Secondary were related to the roles occupied in the school. Department heads rated the desirability of IGE/Secondary significantly lower than did teachers, unit leaders, counselors, and administrators. Teachers rated the implementation of IGE/Secondary significantly lower than did unit leaders, counselors, department heads, and administrators.
4. Certain demographic differences were related to staff perceptions of the desirability and implementation of

IGE/Secondary. Perceptions of desirability and implementation of IGE/Secondary were related to the number of years served in the present position and involvement in team teaching. Perceptions of the desirability of IGE/Secondary were also related to the nature of the subject matter taught.

5. Numerous factors were perceived as bearing on the implementation of IGE/Secondary programs. Participative and supportive leadership behavior on the part of the school principal was perceived as being particularly important in facilitating the implementation of programs similar to IGE/Secondary. Change strategies emphasizing staff participation in identifying and solving existing problems or needs and relevant inservice opportunities were also perceived to be especially important in facilitating the implementation of IGE/Secondary programs. I and A Units and advisor systems were the program elements seen as being particularly important in implementing individualized programs. Concerns associated with the possible elimination of the departmental structure were identified as seriously inhibiting the implementation of IGE/Secondary programs.

Implications for Practice

The findings and conclusions presented earlier have the following implications for future practice.

1. The IGE/Secondary multiunit structure needs to be modified to accommodate the specialized nature of secondary school curriculum as well as department head and teacher attitudes.

   The schools in this study had a great deal of difficulty providing a sufficient number of specialized course offerings within the I and A structure to make it viable. Students typically found it necessary to take courses from teachers in other I and A Units in order to get the courses they needed. Some students spent more time outside their unit than within it, thereby frustrating one of the central purposes of the I and A structure--to personalize the school experience by providing instruction through a relatively small common group of teachers who share an understanding of the student's interests and learning styles.

   In two of the schools, department heads feared that the implementation of I and A Units would result in their loss of position power. In each of the schools, however, teachers and administrators, as well as department heads expressed the concern that strict adherence

to an I and A structure would result in the elimination of more specialized courses and curricular offerings. One school avoided this problem by basing their units on interest areas and career clusters past the ninth grade level. This potentially limiting feature of the I and A unit structure may have been one of the factors responsible for the significantly lower ratings of IGE/Secondary by department heads.

2. A number of alternative IGE/Secondary organizational models should be generated to aid individual schools in the development of a system geared to meet the needs of their particular community, school, and staff.

   One of the schools employed instructional units based upon learning styles. Another school based them on vocational interest areas. Each of the schools tailored their organizational plan to meet their unique problems in a way that was consistent with the values of the staff and community. While each of the schools based their effort upon existing models, the final outcome was sufficiently unique to generate a powerful sense of ownership and pride that was at least partially responsible for successful implementation of the innovation.

The schools studied were careful to secure staff commitment to the proposed change prior to implementation. One of the reasons for the success of the schools studied was that their organizational arrangements did not force individuals into situations that were personally repugnant to them. One school rated the desirability of IGE/Secondary significantly lower than two others because the staff of that school feared that the entire school would eventually be forced into a team teaching situation.

If IGE/Secondary is to be successfully implemented in existing schools with existing staffs, those schools must have the flexibility to develop organizational arrangements that are compatible with the needs of the teaching staff. A series of alternative organizational models would promote this philosophy and provide schools with a basis for developing an individualized organizational structure.

3. An advisory component should be added to the system of IGE/Secondary schooling.

A fully functioning advisor system was identified as being crucial to the individualization of instruction in the schools studied. Each of the schools either had or was in the process of developing an improved system

of course counseling through frequent contact with an adult assigned as the student's advisor. While an I and A Unit includes an advisory aspect, it is thought that the advisory function is sufficiently important as to merit treatment as a distinct component of IGE/Secondary.

4. IGE/Secondary teachers need specialized training and extensive curricular support in order to individualize instruction.

The demands on a secondary school teacher attempting to implement the Instructional Programming Model are extensive. The specialized nature of secondary school curriculum may preclude many of the team teaching strategies employed in IGE/Elementary schools. This means that unless the school's Instructional and Advisory Units are organized on a subject matter basis the effort to individualize instruction at the secondary level may be largely an isolated effort on the part of the individual classroom teacher.

Accordingly, IGE/Secondary teachers require a great deal of assistance in developing instructional programs and instructional management systems. It is suggested that leagues of IGE/Secondary schools be formed to act as linking agents between (a) the individual schools in

a given geographical area, (b) the schools and state education agencies and teacher education institutions, and (c) the schools and other agencies such as the Wisconsin Research and Development Center. These linking agencies need to be provided with financial and human resources in order to provide the expertise and curricular support necessary to individualize instruction.

5. IGE/Secondary schools need to be staffed with individuals having a student-centered as well as a subject-centered orientation and who enjoy planning instructional activities in conjunction with other individuals. The number and nature of I and A Units in each of the schools studied seemed to be dependent upon the philosophy and orientation of the staff.

6. The decision to implement IGE/Secondary should be a collegial decision made after careful analysis of alternative solutions to an identified problem or need. The programs studied derived a large part of their success from the sense of ownership in the agreed upon solution. Central office support and commitment should be secured prior to implementing IGE/Secondary. Adequate funding and other resources critical to successful implementation of programs similar to IGE/Secondary were obtained through the auspices of central office personnel. In

each of the schools an assistant superintendent was intimately involved in identifying problems and initiating solution processes. It is recommended that a Systemwide Program Committee be formed in the initial stages of changeover to IGE/Secondary to ensure sufficient resources for appropriate planning and inservice activities in the early stages of the innovation.

It is also recommended that the Systemwide Program Committee pay special attention to the continuing inservice needs of IGE/Secondary personnel. The schools studied identified the need to provide training for new staff hired after the implementation of the innovation.

Each of the four schools studied identified the need for continuing inservice for refinement and renewal. Each of the schools found it difficult to sustain the staff commitment and enthusiasm that charaterized the school during implementation. Teachers needed additional staff development programs to continue to be innovative. Continued central office encouragement and support is essential in providing appropriate inservice activities in the refinement stage.

Implications for Research

The findings and conclusions presented earlier have the following implications for future research:

1. In this study a number of leadership and organizational factors were seen as facilitating the implementation of programs similar to IGE/Secondary. More focused studies analyzing the effects of leadership behavior and organizational structure on staff morale and perceived Instruction and Research Unit effectiveness have been conducted at the elementary level. It is suggested that similar studies be conducted in connection with IGE/Secondary.
2. House's supportive, participative, and instrumental leadership dimensions proved to be valuable in analyzing leadership behavior in the schools. Participative and supportive leadership behavior were identified as being particularly critical in facilitating change. Subsequently, instrumental leadership behavior may also be significant in institutionalizing the innovation. A longitudinal study analyzing the need for varying leadership behavior over time may prove to be valuable.
3. There is a need to analyze the effect of alternative IGE/Secondary administrative and organizational arrangements

on instructional decision making in IGE/Secondary schools. While it is important that each IGE/Secondary school implement an organizational pattern that meets the needs of its students, staff, and community, additional research is needed to determine relative strengths and weaknesses of varying administrative and organizational arrangements.

4. Studies are needed to analyze the effects of leadership behavior on instructional decision making. In this study the participative leadership behavior of the school principal was seen as enhancing the instructional decision-making authority of the I and A Units, thereby increasing their ability to modify learning conditions to meet the needs of individual students. It is suggested that the ability to delegate decision-making authority be an important criterion in the training and selection of IGE/Secondary principals. This relationship needs to be explored in a more rigorous fashion than was attempted here.

5. Respondents in this study identified staff members' student-centered attitudes as a factor facilitating the implementation of IGE/Secondary programs. This finding takes on additional significance when one considers that counselors rated the desirability of IGE/Secondary

higher than any other position and that department heads rated its desirability significantly lower than the other positions.

In at least one of the schools studied, the school's development of and commitment to an advisor system was perceived as promoting a student-centered orientation on the part of the school's staff. It is suggested that research be conducted focusing on teacher attitudes toward students and the advisory function of secondary school teachers.

6. A number of external factors outside the school's control were also seen as affecting the implementation of IGE/Secondary school programs. A more intensive study of these factors might prove to be valuable.

BIBLIOGRAPHY

Berman, P., & McLaughlin, M. Federal programs supporting educational change (Vols. I-V). Santa Monica, California: Rand Corporation, 1975.

Beugen, J., Kerns, I., & Graper, N. Individually guided education: The principal's handbook. Dayton, Ohio: Institute for Development of Educational Activities, 1971.

Boardman, G. R., & Hudson, C. C. Development of a cost analysis which schools may use to determine budget needs for implementing individually guided education. Lincoln, Nebraska: Teachers College, University of Nebraska, 1973.

Bocian, B. H. Effectiveness of the multiunit elementary school's instruction and research unit and student affective behavior in IGE schools. Technical Report No. 389. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1976.

Brown, F. B. The reform of secondary education: A report of the national commission on reform of secondary education. New York: McGraw-Hill, 1973.

Chase, F. S. IGE and educational reform. In H. J. Klausmeier, R. A. Rossmiller, & M. Saily (Eds.), Individually guided elementary education: Concepts and practices. New York: Academic Press, 1977.

Clark, D. L., & Guba, E. G. The configurational perspective: A new view of educational knowledge production and utilization. Washington, D. C.: Council for Educational Development and Research, Inc., 1964.

Coleman, J. S. Youth: Transition to adulthood. Chicago: The University of Chicago Press, 1974.

Etzioni, A. The active society. New York: The Free Press, 1968.

Evers, N. A. IGE/MUS-E first year implementation cost survey. Technical Report No. 256. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1973.

Feldman, R. H. Involvement in and satisfaction with decision making related to staff and student behavior in IGE schools. Technical Report No. 408. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1976.

Flournoy, L. Untitled report on achievement data of 111th Street School. Los Angeles, California: 111th Street School, 1976.

Gervase, C. J., & Lindia, A. Final report--The evaluation of the IGE program in the Windsor public schools (reading): School year 1973-74. Windsor, Connecticut: Windsor Public Schools, 1974.

Gibbons, M. The new secondary education. Phi Delta Kappa Task Force Report. Bloomington: Phi Delta Kappa, 1976.

Goodridge, C. G. Factors that influence a decision to adopt an educational innovation: IGE. Technical Report No. 376. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1975.

Gramenz, G. W. Relationships of principal leader behavior and organizational structure of the IGE/MUS-E to I & R unit effectiveness. Technical Report No. 320. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1974.

Gregg, R. T. The administrative process. In R. F. Campbell and R. T. Gregg (Eds.), Administrative behavior in education. New York: Harper and Brothers, 1957.

Hackett, J., & McKilligin, G. A study of the multiunit/IGE elementary schools. Janesville, Wisconsin: Janesville Public Schools, 1972.

Halpin, A. W., & Winer, B. J. A factorial study of the leader behavior descriptions. In R. M. Stogdill & A. E. Coons (Eds.), Leader behavior: Its descriptions and measurement. Columbus, Ohio: The Ohio State University Press, 1957.

Hays, W. L. Statistics. New York: Holt, Rinehart, and Winston, 1973.

Herrick, H. S. The relationship of organization structure to teacher motivation in multiunit and non-multiunit schools. Technical Report No. 322. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1974.

Holmquist, A. M. A definitional field study of decision making in IGE/MUS-E schools. Technical Report No. 377. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1976.

House, R. J. A path goal theory of leadership effectiveness. Administrative Science Quarterly, 1971, 16, 321-338.

Kaplan, A. The conduct of inquiry: Methodology for the behavioral sciences. San Francisco: Chandler, 1964.

Katz, D., Macoby, N., & Morse, N. C. Productivity, supervision and morale in an office situation. Detroit, Michigan: Darel Press, Inc., 1950.

Kawleski, S. J. Decision making of the instruction and research units in IGE schools: Functions, processes, and relationships. Technical Report No. 420. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1977.

Kerlinger, F. N. Foundations of behavioral research: Educational and psychological inquiry. New York: Holt, Rinehart, and Winston, 1965.

Klausmeier, H. J., Goodwin, W. L., Prasch, J., & Goodson, M. R. Project models: Maximizing opportunities for development and experimentation in learning in the schools. Occasional Paper No. 3. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1966.

Klausmeier, H. J., & Krupa, W. Questionnaire to assess staff development needs. In H. J. Klausmeier, Individually guided education in elementary and middle schools: A handbook for implementation and college instructors. Reading, Massachusetts: Addison-Wesley, 1977.

Klausmeier, H. J., Quilling, M. R., Sorenson, J. S., Way, R. S., & Glasrud, G. R. Individually guided education in the multiunit school: Guidelines for implementation. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1971.

Klausmeier, H. J., Rossmiller, R. A., & Saily, M. Individually guided education: Concepts and practices. New York: Academic Press, 1977.

Klausmeier, H. J. 1977 workshop on educational reform and renewal through individually guided secondary education--Objectives of IGE/secondary: A focus for cooperative reform and renewal efforts. Working Paper No. 206. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1977. (a)

Klausmeier, H. J. Instructional programming for the individual student. In H. J. Klausmeier, R. A. Rossmiller, & M. Saily (Eds.), Individually guided elementary education: Concepts and practices. New York: Academic Press, 1977. (b)

Klausmeier, H. J. Origin and overview of IGE. In H. J. Klausmeier, R. A. Rossmiller, and M. Saily (Eds.), Individually guided elementary education: Concepts and practices. New York: Academic Press, 1977. (c)

Knezevich, S. J., & Way, R. The generation of multiunit school instructional models for secondary schools. Theoretical Paper No. 38. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1972.

Kreitlow, B. W., & MacNeil, T. An evaluation of the model for educational improvement as an analytical tool for describing the change process. Technical Paper No. 18. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1970.

Lewin, K., Lippitt, R., & White, R. K. Patterns of aggressive behavior in experimentally created "social climates." Journal of Social Psychology, Bulleton 1939, 10, 271-999.

Lipham, J. M. Leadership: General theory and research. In L. L. Cunningham & W. J. Gephart (Eds.), Leadership: The science and the art today. Itasca, Illinois: F. D. Peacock, 1973.

Lippitt, R., Watson, J., & Westley, B. The dynamics of planned change. New York: Harcourt, Brace, and World, Inc., 1958.

Martin, J. H. National panel on high schools and adolescent education. Unpublished report. Washington, D. C.: U. S. Department of Health, Education and Welfare, 1975.

Mendenhall, D. Relationship of organizational structure and leadership behavior to staff satisfaction in IGE schools. Technical Report No. 412. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1977.

Miles, M. Some properties of social systems. In Goodwin Watson (Ed.), Change in school systems. Washington, D. C.: National Training Laboratories, 1967.

Moyle, C. R. J. Decision making of the instructional improvement committee in IGE schools: Functions, processes and relationships. Technical Report No. 415. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1977.

Nelson, R. G. An analysis of the relationship of the multiunit school organizational structure and individually guided education to the learning climate of pupils. Technical Report No. 213. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1972.

Nerlinger, C. M. Participative decision making in IGE/MUS-E schools. Technical Report No. 356. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1975.

Nunnally, J. C. Psychometric theory. New York: McGraw-Hill, 1967.

Nunnally, J. C. One-way analysis of variance--ONEWAY2. Statjob, Vol. VI - Section 3.3. Madison, Wisconsin: University of Wisconsin Computing Center, 1966, pp. 1-32.

Paul, D. A. Change processes at the elementary, secondary, and post-secondary levels of education. Washington, D. C.: National Institute of Education, 1976.

Pellegrin, R. J. Some organizational characteristics of multiunit schools. Working Paper No. 22. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1969.

Pierce, W. H. Forward. In D. S. Bushnell & D. Rappaport (Eds.), Planned educational change: A systems approach. New York: Harcourt Brace Jovanovich, Inc., 1971.

Rogers, E. M., & Shoemaker, F. F. Communications of innovations: A cross-cultural approach. New York: The Free Press, 1971.

Seashore, S. E., & Bowers, D. G. Predicting organizational effectiveness with a four-factor theory of leadership. Administrative Science Quarterly, 1966, 11(2), 238-263.

Sigurdson, C. W. Effectiveness of the instruction and research unit and student achievement in IGE schools. Technical Report No. 385. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1976.

Smith, K. B. An analysis of the relationship between effectiveness of the multiunit elementary school's instructional improvement committee and interpersonal and leaders behaviors. Technical Report No. 230. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1972.

Spuck, D. W. Item analysis and reliability assessment of school sentiment index. Technical Report. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1971.

Spuck, D. W. Program TSTAT. Madison, Wisconsin: The University of Wisconsin-Madison Information Systems for Education, 1971.

Stogdill, R. M. Personal factors associated with leadership: A survey of the literature. Journal of Psychology, 25, 1948, 35-71.

Sweitzer, R. An assessment of two theoretical frameworks. In F. D. Carver, & T. J. Sergiovanni (Eds.), Organizations and human behavior: Focus on schools. New York: McGraw-Hill Book Company, 1969.

Tyler, R. W. New roles for youth in the school and community. National commission on resources for youth. New York: Citation Press, 1974.

Walter, J. E. The relationship of organizational structure to organizational adaptiveness in elementary schools. Technical Report No. 276. Madison, Wisconsin: Wisconsin Research and Development Center for Cognitive Learning, 1973.

Wetterstrand, W. H. DSTAT2: Descriptive statistics and correlation. Madison, Wisconsin: University of Wisconsin Academic Computing Center, 1973.

APPENDIX A

INFORMED CONSENT FORM

Research Study

Organization for Instruction and Administrative Arrangements:

Administration of Individualized Schooling

Informed Consent Form

The study which I am asking you to participate in is designed to examine the degree of desirability and implementation of IGE/Secondary objectives recently formulated at the Wisconsin Research and Development Center. The purpose of the study is to gain practitioner reaction to these objectives. In conducting the study, you will be asked to respond to a questionnaire concerning the desirability and implementation of the objectives, to complete a general background data form, and possibly to participate in an interview with the researchers.

The anonymity of all the participants is guaranteed in any reports of the research. It is expected that the results of the research will lead to modification and clarification of IGE/Secondary objectives as they presently exist and provide a basis for further study into practices of individualized education at the post-elementary level.

The University of Wisconsin-Madison has formally assured the United States Department of Health, Education, and Welfare (DHEW) that it will assure the protection of any human being exposed to risk in any project or program that DHEW or any of its agencies has been requested to support. A copy of this assurance will be made available to you upon request.

There are no known discomforts or risks associated with any of the procedures in which you will participate and such procedures are in conformity with accepted professional practice.

Any questions you may have concerning the procedures to be utilized in this study will be answered. You are free to withdraw your consent and to discontinue participation in this study at any time.

Please sign below to indicate your consent to participate in the study.

_____ _____

Subject Date

APPENDIX B

75-ITEM QUESTIONNAIRE

Possible Instrument for Use in Evaluating Objectives of IGE/Secondary Schooling

Degree of Desirability							Degree of Implementation					
Highly Undesirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable		Don't Know	No	Some	Adequate	Approaching Ideal	Ideal
						Component 1. ORGANIZATION FOR INSTRUCTION AND RELATED DECISION-MAKING ARRANGEMENTS						
						Instructional and decision-making groups are formed which facilitate instructional programming for the individual student. The basic groupings are Instruction and Advisory (I & A) units that function at the teacher-student level, the Instructional Improvement Committee (IIC)* that functions at the building level, and the District School Program Committee (SPC)* that functions at the district level. The number of I & A units in the school and the number of students and staff within each unit varies according to the size of the school. Within each unit the age range of the students and the instructional focus in terms of the number of subject fields and out-of-school activities represented by the instructional staff varies according to the nature of the student population, the values of the school staff and students, and community conditions, including the level of monetary support and opportunities for community work/educative experiences.*						
						1. Instructional-Advisory (I & A) Units are formed and function as the organization for instruction.						
						2. Each I & A Unit is composed of a cooperative teaching team of 2 or more subjects and students representing an age range suitable for effective differentiated instruction in the school facility and community.						
						3. Counselors, special education teachers, prospective teachers, aides, and representative students, parents, and community persons are affiliated with one or more of the I & A Units.						

*The I & A units might be called Instruction and Research units or Learning Communities; the IIC might be called a Program Improvement Committee or some other name; the SPC might be given a different name.

Highly Undesirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable		Don't Know	No	Some	Adequate	Approaching Ideal	Ideal
						4. The entire instructional staff and the students are organized into I & A Units; (two or more units may combine to form schools within large schools).						
						5. A teacher, who also may be a department head, serves as the unit leader of each I & A Unit and chairs the unit meetings.						
						6. Each teacher within the I & A Unit serves as an advisor to part of the students in the I & A Unit.						
						7. The teacher-advisor receives assistance from a guidance counselor as feasible.						
						8. Each member of the I & A Unit participates in the unit meetings and shares in the related planning and decision making.						
						9. The Instructional Improvement Committee (IIC), composed of the building principal, assistant principal, unit leaders, and representative students, is formed and functions to coordinate the school's educational and support programs, (e.g. staff development, home-school-community relations, community experiences and/or work experiences). (Large schools may establish schools within the school and have more than one IIC, each headed by the principal, an assistant principal, or some other person from the administrative staff.)						
						10. The director of the instructional materials center, representative counselors, special education teachers, parents, and community representatives participate in meetings of the IIC when matters of concern to them are on the agenda and may be included as regular members of the IIC.						

*The generic term, instructional, is used to include all in-school and out-of-school activities of students for which the school assumes responsibility.

Highly Undesirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable		Don't Know	No	Some	Adequate	Approaching Ideal	Ideal
						11. IIC meetings are chaired by the principal or assistant principal responsible for the particular IIC.						
						Each unit leader						
						12. Participates in the decision making in the IIC meetings.						
						13. Transmits information from the I & A Unit staff to the IIC.						
						14. Transmits to the unit staff and attempts to have implemented decisions made by the IIC.						
						15. The IIC develops guidelines that encourage and enable students to organize their own student organizations and student activities. (Students participate with the IIC in developing the guidelines.)						
						16. Each unit staff cooperatively plans and coordinates the activities of the I & A Unit, taking into account the IIC's (building level) decisions and the needs and objectives of the staff and students of the unit.						
						17. The Systemwide Program Committee (SPC), composed of the district superintendent, principals of IGE schools and representative principals of other schools, representative unit leaders, teachers of IGE and other schools, representative special teachers, representative students, and a representative(s) of community group(s) is formed and functions to coordinate the IGE program of the district, taking into account district policies and state requirements.						
						18. School district subject-matter coordinators, other specialists, and external consultants are invited to participate in SPC meetings when matters related to their specialty are on the agenda.						
						19. SPC meetings are chaired by the superintendent or his designee.						

Highly Undesirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable		Don't Know	No	Some	Adequate	Approaching Ideal	Ideal
						The principal of each IGE school:						
						20. Participates in decision making in meetings of the SPC.						
						21. Transmits information from the IGE school staff to the SPC.						
						22. Attempts to have implemented decisions made by the SPC.						
						Component 2. INSTRUCTIONAL PROGRAMMING FOR THE INDIVIDUAL STUDENT						
						At least once per semester an instructional program is planned with each individual student that both meets the needs of the individual student and contributes to attaining the school's educational objectives. Every student, except as may have atypically low cognitive development, attains specified minimum objectives set by the school and graduates from the school. In addition to attaining the minimum objectives, students attain other objectives through instruction in the school facility and guided experiences in the community in accordance with their educational and career goals.						
						23. The school's IIC, taking into account district policies and programs and interacting with the I & A Unit staffs through the unit leaders, formulates the general educational objectives (some persons prefer the term aim or goal) for the student population during the forthcoming year.						
						The IIC, interacting with the unit staffs, also coordinates						
						24. The identification of the specific instructional objectives related to each of the general objectives.						
						25. The procuring of instructional materials, equipment, and facilities that will be needed to attain the objectives.						

Highly Desirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable		Don't Know	No	Some	Adequate	Approaching Ideal	Ideal
						26. The identification or development of procedures and instruments for evaluating students' achievement of the instructional objectives.						
						27. The identification or development of the record-keeping procedures and record-keeping forms.						
						The staff of each I & A Unit in the instructional areas for which it assumes responsibility						
						28. Identifies the complete range of instructional objectives the students of the unit may be able to attain during a semester or year.						
						29. Cumulatively develops an understanding of each student's career interests, learning style, level of motivation, and other characteristics that may be useful in planning with, instructing, and guiding the student.						
						30. The staff of each I & A Unit, using appropriate records and preassessment procedures, determines the achievement level of each student related to the instructional objectives that the student may be able to attain through subsequent instruction.						
						31. The staff of each I & A Unit, in individual conferences or small group sessions with students, plans each student's instructional program. (The program may encompass varying perios of time, such as a unit of study, a reporting period).						
						32. The staff of each I & A Unit in unit meetings outlines their general pattern of instructional programming, including advising, instructing, evaluating, and reporting.						
						33. Each staff teacher implements the unit's strategy or plan with the particular students selected or assigned in the unit meeting.						

Highly Desirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable	Differences among students in educational and career goals, rates of learning, learning styles, and other characteristics are provided for by varying:	Don't Know	No	Some	Adequate	Approaching Ideal	Ideal
						34. Educational experience in the school						
						35. Educational experiences in the community (these could include work and/or non-work experience.						
						36. The amount of attention and guidance by the teacher.						
						37. The amount of time spent in interaction among students.						
						38. The use of printed materials, audiovisual materials, and direct experiencing of phenomena.						
						39. The use of space and equipment.						
						40. The amount of time spent by each student in one-to-one interactions with the teacher or community persons, independent study, adult- or student-led small-group activities, and adult-led large-group activities.						
						Students progressively assume more responsibility for						
						41. Planning their own instructional programs.						
						42. Implementing their own instructional programs.						
						43. Evaluating their own instructional programs.						
						44. Evaluating their own social conduct.						
						45. The staff of each I & A Unit, with appropriate involvement of the students, evaluates the students' attainment of their instructional objectives at the end of each instructional sequence, taking into account whether the criterion for the particular objectives is mastery or whether it is performance to a level judged appropriate for the individual student.						
						46. The staff of each unit, with student involvement when appropriate decides what each student will do next, based on summative evaluation gathered at the end of each instructional sequence.						
						Component 3. CURRICULAR MATERIALS.						
						Student attainment of instructional objectives is promoted through the development and/or selection and use of equipment, supplies, and published instructional materials that are cost effective in terms of student learning and teacher time and effort. The I & A units, IIC, and SPC, each at its appropriate level, shares decis decision making regarding the selection and/or development of curricular materials.						

Highly Desirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable		Don't Know	No	Some	Adequate	Approaching Ideal	Ideal
						47. The published curricular guides for teachers include statements of the instructional objectives, evaluation tools and procedures related to the objectives suggested instructional activities, and record-keeping devices and procedures.						
						48. A list or inventory of all available materials in the school building is developed for use by the teachers.						
						49. The instructional staff or a representative committee of staff cross reference these materials to the broad schoolwide educational objectives.						
						50. Students with increasing experience assume more responsibility for selecting and managing the material and supplies needed to achieve their instructional objectives.						
						Component 4. EVALUATION FOR INSTRUCTIONAL DECISION MAKING						
						Student learning, students' instructional programs, the school's curricular programs, are monitored and improved through systematic evaluation carried out by the I & A Unit staffs and the IIC, with technical support and assistance from the school district office and external agencies as needed. The I & A units, IIC, and SPC, each at its appropriate level, share decision making regarding the selection and/or development of curricular materials.						
						51. Each student's progress is evaluated by the I & A Unit staff during and at the end of instructional sequences.						
						52. Feedback is provided to individual students to facilitate their learning.						
						53. Feedback is provided to teachers to improve their instruction.						
						54. The I & A Unit staff evaluates the effectiveness of each student's complete instructional program during the year and uses the information to improve subsequent instructional programming for the student.						

Highly Undesirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable		Don't Know	No	Some	Adequate	Approaching Ideal	Ideal
						55. The I & A Unit staff evaluates the effectiveness of its instruction by systematically gathering information across series of instructional sequences.						
						56. The I & A Unit uses the information in(55) above in making subsequent decisions regarding objectives, materials, and activities.						
						57. The IIC evaluates attainment of the school's educational objectives by the student population of the school, based on evaluative information gathered systematically across the I & A Units.						
						58. Students increasingly assume more responsibility for evaluating their own progress in learning and their own instructional program.						
						Component 5. HOME-SCHOOL-COMMUNITY RELATIONS AND WORK/EDUCATIVE EXPERIENCES						
						Cooperative educational efforts and effective communications between the school and the home and community are fostered.						
						A program of home-school-community relations is planned, implemented, and evaluated at each of the district, school, and teacher-student levels by the SPC, IIC, and I & A Units which provides for						
						59. Communications between the SPC and the district community.						
						60. Communications between the IIC and its school community.						
						61. Communications between the I & A Units and the homes of its students.						
						62. Participation of parents in planning the instructional program of their child(ren) with the teacher-advisor at least once per year.						
						63. Means of reporting student progress to students and their parents.						

Highly Desirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable		Don't Know	No	Some	Adequate	Approaching Ideal	Ideal
						64. Participation of some parents and other community persons in the in-school educational activities.						
						65. Participation of the IIC and the staffs of the I & A Units in the analysis of the home and neighborhood conditions of their students.						
						Component 6. COMMUNITY LEARNING EXPERIENCES						
						A program of community experiences directly related to the characteristics of the school population and the community is planned, implemented, and evaluated at each of the district, school, and teacher-student levels by the SPC, IIC, and I & A Units.						
						66. Non-work (volunteer, community action, etc.) experiences are provided in the community to meet the educational and career needs of each individual student.						
						67. Guided work experiences are provided in the community to meet the educational and career needs of each individual student.						
						68. Students increasingly assume decision-making responsibilities for their community experiences.						
						Component 7. FACILITATIVE ENVIRONMENTS.						
						The environment for learning and instruction within each IGE school and for work and non-work educational experiences in the community is enriched through the intellectual, technical, and material support provided by the I & A Units, IIC, and SPC.						
						69. Each I & A Unit meets a minimum of three hours weekly during school hours to plan and coordinate their activities.						
						70. The IIC meets weekly during school hours to plan and coordinate their activities.						
						71. Workshops and other staff development activities preceding the opening of school and during the school year involving only school and district personnel are arranged for.						
						72. The SPC and IIC cooperate to provide the time during the school day and during the school year for staff development.						

Highly Undesirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable		Don't Know	No	Some	Adequate	Approaching Ideal	Ideal
						Component B. RESEARCH AND DEVELOPMENT						
						Student learning and personality development, instructional and administrative processes, and the roles of school personnel become better understood and also are improved through continuous research and development conducted by school personnel and cooperating individuals and agencies. The I & A units, ITC, and SPC, each at its appropriate level, share decision making regarding research and development conducted in ICE schools.						
						72. Practical problems in implementing the school's educational program are identified and solutions to them are sought.						
						74. Newly developed/prepared curricular materials and community work and non-work education programs are field tested and evaluated.						
						75. External agencies are identified to participate in research and development in the school.						

APPENDIX C

72-ITEM QUESTIONNAIRE

DESIRABILITY AND IMPLEMENTATION

OF IGE/SECONDARY OBJECTIVES

You are participating in a study being conducted by the Wisconsin Research and Development Center for Cognitive Learning. The purpose of this study is to determine the degree of desirability and degree of implementation of IGE/Secondary Objectives.

Completion of the entire instrument should require approximately 30 minutes of your time. All responses will remain confidential and none will be identified by person, school, or school district.

Your participation in this study is sincerely appreciated.

This pilot instrument is published by the Wisconsin Research and Development Center for Cognitive Learning, supported in part as a research and development center by funds from the National Institute of Education, Department of Health, Education and Welfare. The opinions expressed herein do not necessarily reflect the position of the National Institute of Education and no official enforsement by the National Institute of Education should be inferred.

DESIRABILITY AND IMPLEMENTATION QUESTIONNAIRE OF IGE/SECONDARY OBJECTIVES

Name _____ Position _____
(i.e., dept. head, unit leader, teacher)

Directions: This instrument contains 72 items regarding IGE/Secondary objectives. In the left column, circle the number which indicates your perception of the degree of desirability of each item. In the column to the right, circle the number which indicates your perception of the degree of implementation of each item.

DESIRABILITY SCALE

Number	Response	Interpretation
1	Highly Undesirable	The objective, if implemented, would result in great deterioration of education at your school.
2	Undesirable	The objective, if implemented, would result in some deterioration of education at your school.
3	Somewhat Undesirable	The objective, if implemented, would result in more deterioration than improvement of education at your school.
4	Somewhat Desirable	The objective, if implemented, would result in more improvement than deterioration of education at your school.
5	Desirable	The objective, if implemented, would result in some improvement of education at your school.
6	Highly Desirable	The objective, if implemented, would result in great improvement of education at your school.

IMPLEMENTATION SCALE

Number	Response	Interpretation
1	Don't Know	You have insufficient information to form a judgment.
2	No Implementation	The objective is not operative.
3	Some Implementation	The objective is only partially developed or only partially applied.
4	Adequate Implementation	The objective is reasonably well developed and applied.
5	Approaching Ideal Implementation	The objective is highly developed and applied creatively.
6	Ideal Implementation	The objective is highly developed and the staff is capable of maintaining the high level without external assistance.

Desirability and Implementation Questionnaire of ICE/Secondary Objectives

Degree of Desirability							Degree of Implementation						
Highly Undesirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable		Don't Know	No Implementation	Some Implementation	Adequate Implementation	Approaching Ideal Impl.	Ideal Implementation
						Component 1. ADMINISTRATION OF THE SCHOOL *The principal (and assistant principals) provide(s) leadership in planning, coordinating and evaluating the following programs of the school: curricular and cocurricular experiences of the students in the school, learning experiences of students in the community, work experiences of students in the community, student advising, home-school-community relations, relations with external agencies, and continuing research and development.* *In relation to these programs, the principal (and assistant principals) take(s) primary responsibility for:*						
1	2	3	4	5	6	1. Establishing policies, procedures, and programs which facilitate individualized schooling.	1	2	3	4	5	6
1	2	3	4	5	6	2. Initiating appropriate organizational structures and clarifying organizational roles and relationships.	1	2	3	4	5	6
1	2	3	4	5	6	3. Selecting and assigning certificated and noncertificated staff members to fulfill appropriate organizational and instructional-advisory roles.	1	2	3	4	5	6
1	2	3	4	5	6	4. Evaluating the performance of each staff member.	1	2	3	4	5	6
1	2	3	4	5	6	5. Providing and managing the facilities, materials, equipment, and other resources required to implement individualized schooling.	1	2	3	4	5	6
1	2	3	4	5	6	6. Establishing effective two-way communication and shared decision making between and among administrators, other staff, tachers and students, and between the school and parents and citizens of the community	1	2	3	4	5	6

Component 2. ORGANIZATION FOR INSTRUCTION AND RELATED DECISION-MAKING ARRANGEMENTS

Instructional and decision-making groups are formed which facilitate instructional programming for the individual student. The basic groupings are:

Instruction and Advisory (I and A) Units--which might be called Instruction and Research Units, Learning Communities or some other name--that function at the teacher-student level.

The Instructional Improvement Committee (IIC)--which might be called Program Improvement Committee or some other name--that functions at the building level.

The Systemwide Program Committee (SPC)--which might be called some other name--that functions at the district level.

The number of I & A Units in the school and the number of students and staff within each unit varies according to the size of the school. Within each unit the age range of the students and the instructional focus in terms of the number of subject fields and out-of-school activities represented by the instructional staff varies according to the nature of the student population, the values of the school staff and students, and community conditions, including the level of monetary support and opportunities for community work/educative experiences.

1 2 3 4 5 6	7. Instructional and Advisory (I & A) Units are formed and function as the organization for instruction.	1 2 3 4 5 6
1 2 3 4 5 6	8. Each I & A Unit is composed of a cooperative teaching team including two or more subjects and students representing an age range suitable for effective differentiated instruction.	1 2 3 4 5 6
1 2 3 4 5 6	9. Counselors, special education teachers, student teachers, aides, and representative parents and community resource persons are affiliated with one or more of the I & A Units.	1 2 3 4 5 6
1 2 3 4 5 6	10. The entire instructional staff and the students are organized into I & A Units.	1 2 3 4 5 6
1 2 3 4 5 6	11. A teacher serves as the unit leader of each I & A Unit and chairs the unit meetings.	1 2 3 4 5 6

Degree of Desirability							Degree of Implementation					
Highly Undesirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable	Component 2 continued	Don't Know	No Implementation	Some Implementation	Adequate Implementation	Approaching Ideal Impl.	Ideal Implementation
1	2	3	4	5	6	12. Each I & A Unit meets a minimum of three hours weekly during the school hours to plan and coordinate their activities.	1	2	3	4	5	6
1	2	3	4	5	6	13. Each teacher within the I & A Unit serves as an advisor to part of the students in the Unit.	1	2	3	4	5	6
1	2	3	4	5	6	14. The teacher-advisor receives assistance from a guidance counselor.	1	2	3	4	5	6
1	2	3	4	5	6	15. Each member of the I & A Unit participates in the unit meetings and shares in planning and decision making.	1	2	3	4	5	6
1	2	3	4	5	6	16. The Instructional Improvement Committee (IIC), composed of the building principal, unit leaders, and representative students, is formed and functions to coordinate the school's educational and support programs.	1	2	3	4	5	6
1	2	3	4	5	6	17. The director of the instructional materials center, representative counselors, special education teachers, parents, and community representatives participate in meetings of the IIC when matters of concern to them are on the agenda.	1	2	3	4	5	6
1	2	3	4	5	6	18. IIC meetings are chaired by the principal or assistant principal.	1	2	3	4	5	6
1	2	3	4	5	6	19. The IIC meets weekly during school hours to plan and coordinate their activities.	1	2	3	4	5	6

1 2 3 4 5 6	20. The IIC develops guidelines that encourage and enable students to organize their own student organizations and student activities.	1 2 3 4 5 6
1 2 3 4 5 6	21. The staff of each I & A Unit cooperatively plans and coordinates unit activities taking into account the IIC's (building level) decisions.	1 2 3 4 5 6
1 2 3 4 5 6	22. The Systemwide Program Committee (SPC), composed of the district superintendent, principals of IGE schools and representative principals of other schools, representative special teachers, representative students, and a representative(s) of community group(s) is formed and functions to coordinate the IGE program of the district, taking into account district policies and state requirements.	1 2 3 4 5 6
1 2 3 4 5 6	23. School district subject-matter coordinators, other specialists, and external consultants are invited to participate in SPC meetings when matters related to their specialty are on the agenda.	1 2 3 4 5 6
1 2 3 4 5 6	24. SPC meetings are chaired by the superintendent or his designee.	1 2 3 4 5 6

Degree of Desirability							Degree of Implementation					
Highly Undesirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable		Don't Know	No Implementation	Some Implementation	Adequate Implementation	Approaching Ideal Impl.	Ideal Implementation
						Component 3. INSTRUCTIONAL PROGRAMMING FOR THE INDIVIDUAL STUDENT *At least once per semester an instructional program is planned with each individual student that meets both the needs of the individual student and contributes to attaining the school's educational objectives. Every student, except as may have atypically low cognitive development, attains specified minimum objectives set by the school and graduates from the school. In addition to attaining the minimum objectives, students attain other objectives through instruction in the school facility and guided experiences in the community in accordance with their educational and career goals.* *The IIC, interacting with the unit staffs, coordinates:*						
1	2	3	4	5	6	25. The formulation of the general educational goals and objectives for the student population during the forthcoming year, after interaction with the I & A staffs and unit leaders.	1	2	3	4	5	6
1	2	3	4	5	6	26. The identification of the specific instructional objectives related to each of the general objectives.	1	2	3	4	5	6
1	2	3	4	5	6	27. The identification or development of procedures and instruments for evaluating students' achievement of the instructional objectives.	1	2	3	4	5	6
1	2	3	4	5	6	28. The identification or development of the recordkeeping procedures.	1	2	3	4	5	6
						The staff of each I & A Unit in the instructional areas for which it assumes responsibility:						
1	2	3	4	5	6	29. Identifies the complete range of instructional objectives the students of the unit may be able to attain during a semester or year.	1	2	3	4	5	6
1	2	3	4	5	6	30. Develops an understanding of each student's career interests, learning style, level of motivation, and other characteristics that may be useful in planning with, instructing, and guiding the student.	1	2	3	4	5	6

1 2 3 4 5 6	31. Determines the achievement level of each student related to the instructional objectives that the student may be able to attain through subsequent instruction.	1 2 3 4 5 6
1 2 3 4 5 6	32. Plans each student's instructional program. (The program may encompass varying periods of time, such as a unit of study, or a reporting period.)	1 2 3 4 5 6
1 2 3 4 5 6	33. Outlines their general pattern of instructional programming, including advising, instructing, evaluating, and reporting.	1 2 3 4 5 6
1 2 3 4 5 6	34. Implements the unit's strategy or plan with the particular students selected or assigned in the unit meeting.	1 2 3 4 5 6
	Differences among students in educational and career goals, rate of learning, types of learning styles, and other characteristics are provided for by varying:	
1 2 3 4 5 6	35. The amount of attention and guidance by the teacher.	1 2 3 4 5 6
1 2 3 4 5 6	36. The amount of time spent in interaction among students.	1 2 3 4 5 6
1 2 3 4 5 6	37. The use of printed materials, audiovisual materials, and direct experiencing of phenomena.	1 2 3 4 5 6
1 2 3 4 5 6	38. The use of space and equipment.	1 2 3 4 5 6
1 2 3 4 5 6	39. The amount of time spent by each student in one-to-one interactions with the teacher or community persons, independent study, adult- or student-led small-group activities and adult-led large-group activities.	1 2 3 4 5 6

Degree of Desirability							Degree of Implementation						
Highly Undesirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable	Component 3 continued	Don't Know	No Implementation	Some Implementation	Adequate Implementation	Approaching Ideal Impl.	Ideal Implementation
						Students progressively assume more responsibility for:						
1	2	3	4	5	6	40. Planning their own instructional programs.	1	2	3	4	5	6
1	2	3	4	5	6	41. Implementing their own instructional programs.	1	2	3	4	5	6
1	2	3	4	5	6	42. Evaluating their own instructional programs.	1	2	3	4	5	6
						The staff of each I S A Unit, with appropriate involvement of the students:						
1	2	3	4	5	6	43. Evaluates the students' attainment of their instructional objectives at the end of each instructional sequence, taking into account whether the criterion for the particular objectives is mastery or whether it is performance at a level judged appropriate for the individual student.	1	2	3	4	5	6
1	2	3	4	5	6	44. Decides what each student will do next, based on summative evaluation gathered at the end of each instructional sequence.	1	2	3	4	5	6

	Component 4. CURRICULAR MATERIALS *Student attainment of instructional objectives is promoted through instructional materials. The I & A units, IIC, and SPC, each at its appropriate level, shares decision making regarding the selection and/or development of curricular materials.*	
1 2 3 4 5 6	45. Published curricular guides for teachers include statements of the instructional objectives, evaluation tools and procedures related to the objectives, suggested instructional activities, and record-keeping devices and procedures.	1 2 3 4 5 6
1 2 3 4 5 6	46. An inventory of all available materials in the school building is developed for use by the teachers.	1 2 3 4 5 6
1 2 3 4 5 6	47. The instructional staff or a representative committee of staff cross reference these materials to the broad schoolwide educational objectives.	1 2 3 4 5 6
1 2 3 4 5 6	48. Students with increasing experience assume more responsibility for selecting and managing material needed to achieve their instructional objectives.	1 2 3 4 5 6
	Component 5. EVALUATION FOR INSTRUCTIONAL DECISION MAKING *Student learning, students' instructional programs and the school's curricular programs, are monitored and improved through systematic evaluation carried out by the I & A Unit staffs and the IIC, with technical support and assistance from the school district office and external agencies as needed. The I & A units, IIC, and SPC, each at its appropriate level, share decision making regarding the selection and/or development of curricular materials.*	
1 2 3 4 5 6	49. Each student's progress is evaluated by the I & A Unit staff during and at the end of instructional sequences.	1 2 3 4 5 6
1 2 3 4 5 6	50. Feedback is provided to individual students to facilitate their learning.	1 2 3 4 5 6
1 2 3 4 5 6	51. Feedback is provided to teachers to facilitate their instruction.	1 2 3 4 5 6
1 2 3 4 5 6	52. The I & A Unit staff evaluates the effectiveness of each student's complete instructional program during the year and uses the information to improve subsequent instructional programming for the student.	1 2 3 4 5 6
1 2 3 4 5 6	53. The I & A Unit staff evaluates the effectiveness of its instruction by systematically gathering information across series of instructional sequences.	1 2 3 4 5 6

Degree of Desirability							Degree of Implementation						
Highly Undesirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable	Component 5 continued	Don't Know	No Implementation	Some Implementation	Adequately Implemented	Approaching Ideal Impl.	Ideal Implementation
1	2	3	4	5	6	54. The I & A Unit uses the information in 53 in making subsequent decisions regarding objectives, materials, and activities.	1	2	3	4	5	6
1	2	3	4	5	6	55. The IIC evaluates attainment of the school's educational objectives by the student population of the school, based on evaluative information gathered systematically across the I & A Units.	1	2	3	4	5	6
1	2	3	4	5	6	56. Students increasingly assume more responsibility for evaluating their own progress in learning.	1	2	3	4	5	6

	Component 6. HOME-SCHOOL-COMMUNITY RELATIONS *Cooperative educational efforts and effective communications between the school and the community are fostered by a program of home-school-community relations which is planned, implemented, and evaluated at each of the district school, and teacher-student levels by the SPC, IIC, and I & A Units. It provides for:*	
1 2 3 4 5 6	57. Two-way communications between the school and community.	1 2 3 4 5 6
1 2 3 4 5 6	58. Participation of parents in planning the instructional program of their child(ren) with the teacher-advisor at least once per year.	1 2 3 4 5 6
1 2 3 4 5 6	59. Means of reporting student progress to students and their parents.	1 2 3 4 5 6
1 2 3 4 5 6	60. Participation of parents and other community resource persons in the in-school educational activities.	1 2 3 4 5 6
1 2 3 4 5 6	61. Participation of the IIC and the staffs of the I & A Units in the analysis of the home and neighborhood conditions of their students.	1 2 3 4 5 6
	Component 7. COMMUNITY LEARNING EXPERIENCE *A program of community experiences directly related to the characteristics of the school population and the community is planned, implemented, and evaluated at each of the district school, and teacher-student levels by the SPC, IIC, and I & A Units.*	
1 2 3 4 5 6	62. Non-work (volunteer, community action, etc.) experiences are provided in the community to meet the educational and career needs of each individual student.	1 2 3 4 5 6
1 2 3 4 5 6	63. Guided work experiences are provided in the community to meet the educational and career needs of each individual student.	1 2 3 4 5 6
1 2 3 4 5 6	64. Students increasingly assume decision-making responsibilities for their community learning experiences.	1 2 3 4 5 6

Degree of Desirability							Degree of Implementation					
Highly Undesirable	Undesirable	Somewhat Undesirable	Somewhat Desirable	Desirable	Highly Desirable		Don't Know	No Implementation	Some Implementation	Adequate Implementation	Approaching Ideal Impl.	Ideal Implementation
						Component 8. FACILITATIVE ENVIRONMENTS *The environment for learning and instruction is enhanced through the intellectual, technical, and material support provided by the I & A Units, IIC, and SPC.*						
1	2	3	4	5	6	65. Workshops and other staff development activities are provided throughout the school year.	1	2	3	4	5	6
1	2	3	4	5	6	66. Time is provided during the school day for staff development activities.	1	2	3	4	5	6
1	2	3	4	5	6	67. Regional coordinating councils or leagues composed of representatives of local schools, teacher education institutions, intermediate agencies, and the state education agency, coordinate IGE activities in their respective geographic areas.	1	2	3	4	5	6
1	2	3	4	5	6	68. Teacher education institutions provide student teaching opportunities in the local school.	1	2	3	4	5	6
1	2	3	4	5	6	69. Credit courses and/or noncredit staff development programs are provided by teacher education institutions to enable teachers, unit leaders, and administrators to refine their IGE competencies.	1	2	3	4	5	6

Component 9. RESEARCH AND DEVELOPMENT

Student learning and personality development, instructional and administrative processes, and the roles of school personnel become better understood and also are improved through continuous research and development conducted by school personnel and cooperating individuals and agencies.

1 2 3 4 5 6	70. Practical problems in implementing the school's educational program are identified and solutions to them are sought.	1 2 3 4 5 6
1 2 3 4 5 6	71. Newly developed/prepared curricular materials and community work and non-work education programs are field tested and evaluated.	1 2 3 4 5 6
1 2 3 4 5 6	72. External agencies are identified to participate in research and development in the school.	1 2 3 4 5 6

BACKGROUND INFORMATION

Please complete the following by filling in the blank or placing a check mark next to the appropriate space or spaces.

1. What is your present position?

___ Teacher

___ Teacher and Department Head

___ Teacher and Unit Leader (Learning Community, Team Coordinator, etc.)

___ Counselor

___ Administrator

___ Other: Please specify _____

2. How many years of experience have you had in your present position including this year? _____

3. What subject(s) do you teach? _____

4. What grade(s) or age level(s) do you teach or work with?

(Check as many as apply.)

___ 9th

___ 10th

___ 11th

___ 12th

5. Which of the following best describes your teaching situation?

___ single subject, no teaming

___ single subject team

___ 2 subject team

___ 3 or more subject team

___ Other: Please specify _____

6. Please describe any other distinctive aspects of your teaching situation (i.e. a division within your school existing for a specific purpose, etc.). _____

_____

_____

APPENDIX D

62-ITEM QUESTIONNAIRE

May 10, 1977

Dear Participant:

Since 1968 the Wisconsin Research and Development Center has been working with schools to improve education at the elementary level. The result has been Individually Guided Education (IGE), a comprehensive organizational and instructional system for personalizing instruction.

Now the Center is focusing its efforts on secondary schools. We have formulated a proposed set of IGE/Secondary objectives similar in many respects to North Central's alternative program. The purpose of the accompanying questionnaire is to provide us with the necessary feedback for making appropriate alterations. We are interested in knowing (1) if you think the following objectives are desirable in your own teaching situation, and (2) to what extent you yourselves are doing any of these things in your particular situation. It is crucial that we get feedback from individuals in schools where some of these practices have been tried. In revising our objectives, the opinions of those who are not implementing these practices in schools such as North Central are just as important (if not more so) than those who are. Your participation in this study, therefore, would be very much appreciated.

A few follow-up interviews will be conducted to get at some of the ideas in more depth and to learn about your school program in general. For this reason, we ask that you indicate your name in the space provided. We are required by federal legislation to protect your anonymity. The results of the study will be reported on a school-wide basis using fictitious names. Not even the name of North Central High School can be used in our study.

The questionnaire may be more difficult to answer than most in that we are asking you to respond to a model for secondary schooling. Respond as best you can. If there is some item you do not understand, simply leave that item blank. Thank you for your cooperation.

Sincerely yours,

Mick Maier

Mick Maier
Project Assistant

DESIRABILITY AND IMPLEMENTATION OF IGE/SECONDARY OBJECTIVES

Thank you for participating in this study being conducted by the Wisconsin Research and Development Center for Cognitive Learning. The purpose of this study is to determine the degree of desirability and the degree of implementation of IGE/Secondary Objectives. Individually Guided Education (IGE) in Secondary Schools is conceived as consisting of the following nine components:

1. ADMINISTRATION OF THE SCHOOL
2. ORGANIZATION OF INSTRUCTION FOR SHARED DECISION MAKING
3. INSTRUCTIONAL PROGRAMMING FOR THE INDIVIDUAL STUDENT
4. COMPATIBLE CURRICULAR MATERIALS
5. EVALUATION FOR INSTRUCTIONAL DECISION MAKING
6. HOME-SCHOOL-COMMUNITY RELATIONS
7. COMMUNITY LEARNING EXPERIENCES
8. SUPPORTIVE FACILITATIVE ENVIRONMENTS
9. CONTINUING RESEARCH AND DEVELOPMENT

Completion of the entire instrument should require approximately 30 minutes of your time. All responses will remain confidential and none will be identified by person, school, or school district.

Your participation in this study is sincerely appreciated.

This pilot instrument is published by the Wisconsin Research and Development Center for Cognitive Learning, supported in part as a research and development center by funds from the National Institute of Education, Department of Health, Education and Welfare. The opinions expressed herein do not necessarily reflect the position of the National Institute of Education and no official endorsement by the National Institute of Education should be inferred.

DESIRABILITY AND IMPLEMENTATION OF IGE/SECONDARY OBJECTIVES

Name _____ Position _____
(i.e., dept. head, unit leader, teacher)

Directions: This instrument contains 62 items regarding IGE/Secondary objectives. In the left column, circle the number which indicates your perception of the degree of desirability of each item. In the column to the right, circle the number which indicates your perception of the degree of implementation of each item. Respond to the items from your perspective based on your specific teaching situation in your school.

DESIRABILITY SCALE

Number	Response	Interpretation
1	Highly Undesirable	The objective, if implemented, would result in great deterioration of education in your school.
2	Undesirable	The objective, if implemented, would result in some deterioration of education in your school.
3	Somewhat Undesirable	The objective, if implemented, would result in more deterioration than improvement of education in your school.
4	Somewhat Desirable	The objective, if implemented, would result in more improvement than deterioration of education in your school.
5	Desirable	The objective, if implemented, would result in some improvement of education in your school.
6	Highly Desirable	The objective, if implemented, would result in great improvement of education in your school.

IMPLEMENTATION SCALE

Number	Response	Interpretation
1	Don't Know	You have insufficient information to form a judgment.
2	No Implementation	The objective is not operative.
3	Some Implementation	The objective is only partially developed or only partially applied.
4	Adequate Implementation	The objective is reasonably well developed and applied.
5	Approaching Ideal Implementation	The objective is highly developed and applied creatively.
6	Ideal Implementation	The objective is highly developed and the staff is capable of maintaining the high level without external assistance.

DESIRABILITY AND IMPLEMENTATION OF IGE/SECONDARY OBJECTIVES

Degree of Desirability	Degree of Implementation
1. Highly Undesirable	1. Don't Know
2. Undesirable	2. No Implementation
3. Somewhat Undesirable	3. Some Implementation
4. Somewhat Desirable	4. Adequate Implementation
5. Desirable	5. Approaching Ideal Impl.
6. Highly Desirable	6. Ideal Implementation

Component 1. ADMINISTRATION OF THE SCHOOL

The principal provides leadership in planning, coordinating, and evaluating the following programs of the school: curricular and cocurricular experiences of the students in the school, learning experiences of students in the community, work experiences of students in the community, student advising, home-school-community relations, relations with external agencies, and continuing research and development.

The principal takes primary responsibility for:

Desirability		Implementation
1 2 3 4 5 6	1. Establishing policies, procedures, and programs which facilitate individualized schooling.	1 2 3 4 5 6
1 2 3 4 5 6	2. Initiating appropriate organizational structures and clarifying organizational roles and relationships.	1 2 3 4 5 6

1	2	3	4	5	6	3. Selecting and assigning certificated and noncertificated staff members to fulfill appropriate organizational and instructional-advisory roles.	1	2	3	4	5	6
1	2	3	4	5	6	4. Evaluating the performance of each staff member.	1	2	3	4	5	6
1	2	3	4	5	6	5. Managing facilities, materials, equipment, supplies, and other resources required to implement individualized schooling.	1	2	3	4	5	6
1	2	3	4	5	6	6. Establishing effective two-way communication and shared decision making among administrators, other staff, teachers, and students, and between the school and parents and citizens of the community.	1	2	3	4	5	6

DESIRABILITY AND IMPLEMENTATION OF IGE/SECONDARY OBJECTIVES

Degree of Desirability	Degree of Implementation
1. Highly Undesirable	1. Don't Know
2. Undesirable	2. No Implementation
3. Somewhat Undesirable	3. Some Implementation
4. Somewhat Desirable	4. Adequate Implementation
5. Desirable	5. Approaching Ideal Impl.
6. Highly Desirable	6. Ideal Implementation

Component 2. ORGANIZATION OF INSTRUCTION FOR SHARED DECISION MAKING

*Instruction and Advisory Units, sometimes referred to as Learning Communities or Schools-within-a-school, are formed. Instruction and Advisory Units consist of a team of teachers representing 2 or more subject matter specialties and students of 2 or more age levels.

*The Instructional Improvement Committee, sometimes called Program Improvement Committee, functions at the building level.

*The Systemwide Program Committee functions at the district level.

1 2 3 4 5 6	7. The entire instructional staff is organized into Instruction and Advisory Units (teaching teams).	1 2 3 4 5 6
1 2 3 4 5 6	8. The units (teams) consist of teachers from 2 or more subject matter specialties.	1 2 3 4 5 6
1 2 3 4 5 6	9. The units (teams) work with students of 2 or more age levels.	1 2 3 4 5 6
1 2 3 4 5 6	10. A teacher serves as the leader of the unit and chairs unit meetings.	1 2 3 4 5 6
1 2 3 4 5 6	11. Each unit (team) meets for a minimum of three hours weekly within school hours to plan their activities.	1 2 3 4 5 6

1 2 3 4 5 6	12. Each unit teacher serves as an advisor to part of the students in that unit.	1 2 3 4 5 6
1 2 3 4 5 6	13. The teacher-advisor receives assistance from a guidance counselor.	1 2 3 4 5 6
1 2 3 4 5 6	14. The Instructional Improvement Committee is formed at the building level and is composed of the principal, unit leaders, and representative students to coordinate the educational programs of the school.	1 2 3 4 5 6
1 2 3 4 5 6	15. Representative media specialists, counselors, special education teachers, parents and citizens participate in Instructional Improvement (building level) Committee meetings when matters of concern to them are on the agenda.	1 2 3 4 5 6
1 2 3 4 5 6	16. The Instructional Improvement (building level) Committee meets weekly during school hours to plan its activities.	1 2 3 4 5 6
1 2 3 4 5 6	17. The staff of each unit coordinates its activities, taking into account the Instructional Improvement (building level) Committee decisions.	1 2 3 4 5 6
1 2 3 4 5 6	18. The Systemwide Program Committee is formed at the district level and is composed of the superintendent, principals, representative teachers, students, and citizens to coordinate the educational program of the district.	1 2 3 4 5 6
1 2 3 4 5 6	19. School district subject-matter coordinators, other specialists, and external consultants participate in Systemwide Program (district level) Committee matters when matters related to their specialty are on the agenda.	1 2 3 4 5 6

Degree of Desirability	Degree of Implementation
1. Highly Undesirable	1. Don't Know
2. Undesirable	2. No Implementation
3. Somewhat Undesirable	3. Some Implementation
4. Somewhat Desirable	4. Adequate Implementation
5. Desirable	5. Approaching Ideal Impl.
6. Highly Desirable	6. Ideal Implementation

Component 3. INSTRUCTIONAL PROGRAMMING FOR THE INDIVIDUAL STUDENT

At least once per semester an instructional program is planned with each individual student that meets both the needs of the individual student and contributes to attaining the school's educational objectives. Every student attains specified minimum objectives set by the school. In addition to attaining the minimum objectives, students attain other objectives through instruction in the school and in the community in accordance with their educational and career goals.

The Instructional Improvement (building level) Committee coordinates:

1 2 3 4 5 6	20. The formulation of the general educational goals and objectives for the student population during the forthcoming year, after interaction with the unit staffs and unit leaders.	1 2 3 4 5 6
1 2 3 4 5 6	21. The identification of the specific instructional objectives related to each of the general objectives.	1 2 3 4 5 6
1 2 3 4 5 6	22. The identification or development of procedures and instruments for evaluating students' achievement of the instructional objectives.	1 2 3 4 5 6
1 2 3 4 5 6	23. The development of the recordkeeping procedures to be used.	1 2 3 4 5 6

Each Instructional and Advisory unit (team):

1 2 3 4 5 6	24. Identifies the complete range of instructional objectives the students of the unit may be able to attain during a semester or year.	1 2 3 4 5 6

1	2	3	4	5	6	25. Develops an understanding of each student's career interests, learning style, level of motivation, and other characteristics that may be useful in planning with, instructing, and guiding the student.	1	2	3	4	5	6
1	2	3	4	5	6	26. Determines the achievement level of each student related to the instructional objectives that the student may be able to attain through subsequent instruction.	1	2	3	4	5	6
1	2	3	4	5	6	27. Plans each student's instructional program. (The program may encompass varying periods of time, such as a unit of study, or a reporting period.)	1	2	3	4	5	6
1	2	3	4	5	6	28. Outlines the unit's general pattern of instructional programming, including advising, instructing, evaluating, and reporting.	1	2	3	4	5	6
1	2	3	4	5	6	29. Implements the unit's strategy for each student or group of students.	1	2	3	4	5	6
1	2	3	4	5	6	30. Evaluates the students' attainment of their objectives at the end of each instructional sequence.	1	2	3	4	5	6

Degree of Desirability	Degree of Implementation
1. Highly Undesirable	1. Don't Know
2. Undesirable	2. No Implementation
3. Somewhat Undesirable	3. Some Implementation
4. Somewhat Desirable	4. Adequate Implementation
5. Desirable	5. Approaching Ideal Impl.
6. Highly Desirable	6. Ideal Implementation

Differences among students in educational and career goals, rates of learning, types of learning styles, and other characteristics are provided for by <u>varying</u>:

1	2	3	4	5	6	31. The amount of attention and guidance by the teacher.	1	2	3	4	5	6
1	2	3	4	5	6	32. The amount of interaction with community resource persons.	1	2	3	4	5	6
1	2	3	4	5	6	33. The amount of time spent in student-led activities.	1	2	3	4	5	6
1	2	3	4	5	6	34. The amount of time spent by each student in independent study, small-group activities, and large-group activities.	1	2	3	4	5	6
1	2	3	4	5	6	35. The use of printed materials, audiovisual materials, space, and equipment.	1	2	3	4	5	6

Students progressively assume more responsibility for:

1	2	3	4	5	6	36. Planning their own instructional programs.	1	2	3	4	5	6
1	2	3	4	5	6	37. Implementing their own instructional programs.	1	2	3	4	5	6
1	2	3	4	5	6	38. Evaluating their own instructional programs.	1	2	3	4	5	6

Component 4. CURRICULAR MATERIALS

Appropriate curricular materials are developed to promote student attainment of instructional objectives.

1	2	3	4	5	6	39. Curricular guides are developed which include statements of the instructional objectives, evaluation tools and procedures related to the objectives, suggested instructional activities, and record-keeping procedures.	1	2	3	4	5	6
1	2	3	4	5	6	40. An inventory of all available materials in the school building is developed for use by the teachers.	1	2	3	4	5	6
1	2	3	4	5	6	41. Curricular materials are cross-referenced with the schoolwide educational objectives.	1	2	3	4	5	6
1	2	3	4	5	6	42. Students assume increasing responsibility for selecting and managing materials needed to achieve their instructional objectives.	1	2	3	4	5	6

Degree of Desirability	Degree of Implementation
1. Highly Undesirable	1. Don't Know
2. Undesirable	2. No Implementation
3. Somewhat Undesirable	3. Some Implementation
4. Somewhat Desirable	4. Adequate Implementation
5. Desirable	5. Approaching Ideal Impl.
6. Highly Desirable	6. Ideal Implementation

Component 5. EVALUATION FOR INSTRUCTIONAL DECISION MAKING

Students' instructional programs, and the school's curriculum are improved through the use of systematic evaluation procedures.

1 2 3 4 5 6	43. Each student's progress is evaluated by the unit (team) during and at the end of instructional sequences.	1 2 3 4 5 6
1 2 3 4 5 6	44. The unit evaluates each student's complete instructional program for the year in order to improve subsequent instructional programming for each student.	1 2 3 4 5 6
1 2 3 4 5 6	45. The unit uses the evaluative information to make subsequent decisions regarding objectives, materials, and activities.	1 2 3 4 5 6
1 2 3 4 5 6	46. The Instructional Improvement (building level) Committee evaluates the attainment of the school's educational objectives by the student population of the school.	1 2 3 4 5 6
1 2 3 4 5 6	47. Students increasingly assume responsibility for evaluating their own progress in learning.	1 2 3 4 5 6

Component 6. HOME-SCHOOL-COMMUNITY RELATIONS

Cooperative efforts and effective communications between the school and the community are fostered by a program of home-school-community relations which is planned, implemented, and evaluated at district, school, and teacher-student levels.

The program provides for:

1	2	3	4	5	6	48. Participation of the staff in the analysis of the home and neighborhood conditions of their students.	1	2	3	4	5	6
1	2	3	4	5	6	49. Two-way communications between the school and community.	1	2	3	4	5	6
1	2	3	4	5	6	50. Participation of parents in planning the instructional program of their child(ren) with the teacher-advisor at least once per year.	1	2	3	4	5	6
1	2	3	4	5	6	51. Means of reporting student progress to students and their parents.	1	2	3	4	5	6
1	2	3	4	5	6	52. Participation of parents and other community resource persons in the in-school educational activities.	1	2	3	4	5	6

Degree of Desirability	Degree of Implementation
1. Highly Undesirable	1. Don't Know
2. Undesirable	2. No Implementation
3. Somewhat Undesirable	3. Some Implementation
4. Somewhat Desirable	4. Adequate Implementation
5. Desirable	5. Approaching Ideal Impl.
6. Highly Desirable	6. Ideal Implementation

Component 7. COMMUNITY LEARNING EXPERIENCES

A program of community experiences directly related to the characteristics of the school population and the community is planned, implemented, and evaluated at district, school, and teacher-student levels.

1 2 3 4 5 6	53. Non-work (volunteer or community action) experiences are provided in the community to meet the educational and career needs of each student.	1 2 3 4 5 6
1 2 3 4 5 6	54. Guided work experiences are provided in the community to meet the educational and career needs of each student.	1 2 3 4 5 6
1 2 3 4 5 6	55. Students increasingly assume decision-making responsibilities for their community learning experiences.	1 2 3 4 5 6

Component 8. SUPPORTIVE FACILITATIVE ENVIRONMENTS

Intellectual, technical, and material support is provided by the school district and other educational agencies.

1	2	3	4	5	6	56. Workshops and other staff development activities are provided throughout the school year.	1	2	3	4	5	6
1	2	3	4	5	6	57. The school participates in councils or leagues composed of representatives of local schools, teacher education institutions, intermediate agencies, and the state education agency, which coordinate activities in the area.	1	2	3	4	5	6
1	2	3	4	5	6	58. The school provides student teaching opportunities in the units in cooperation with teacher training institutions.	1	2	3	4	5	6
1	2	3	4	5	6	59. Credit and/or noncredit staff development programs are provided by teacher education institutions to enable teachers, unit (team) leaders, administrators, and others to refine their competencies.	1	2	3	4	5	6

Component 9. CONTINUING RESEARCH AND DEVELOPMENT

Student learning and personality development, instructional and administrative processes, and the roles of school personnel become better understood and are improved through continuous research and development conducted by school personnel and cooperating individuals and agencies.

1	2	3	4	5	6	60. Practical problems in implementing the school's educational program are identified and solutions to them are sought.	1	2	3	4	5	6
1	2	3	4	5	6	61. Newly developed/prepared curricular materials and community work and non-work educational programs are field tested and evaluated.	1	2	3	4	5	6
1	2	3	4	5	6	62. External agencies are identified and participate in research and development activities in the school.	1	2	3	4	5	6

BACKGROUND INFORMATION

Please complete the following by filling in the blank or placing a check mark next to the appropriate space or spaces.

1. What is your present position?

___ Teacher

___ Teacher and Department Head

___ Teacher and Unit Leader (Learning Community, Team Coordinator, etc.)

___ Counselor

___ Administrator

___ Other: Please specify _____

2. How many years of experience have you had in your present position including this year? _____

3. What subject(s) do you teach? _____

4. What grade(s) or age level(s) do you teach or work with?
(Check as many as apply.)

___ 9th

___ 10th

___ 11th

___ 12th

5. Which of the following best describes your teaching situation?

___ single subject, no teaming

___ single subject team

___ 2 subject team

___ 3 or more subject team

___ Other: Please specify _____

6. Please describe any other distinctive aspects of your teaching situation (i.e. a division within your school existing for a specific purpose, etc.). _____

_____

_____

APPENDIX E

CORRELATION OF DESIRABILITY AND IMPLEMENTATION RATINGS

CORRELATION COEFFICIENTS AND LEVELS OF SIGNIFICANCE .05 OR LESS FOR CORRELATION OF DESIRABILITY AND IMPLEMENTATION RATINGS ACCORDING TO NINE COMPONENTS AND TOTAL OF IGE/SECONDARY: ALL SCHOOLS

	School							
	A		B		C		D	
Component	r	Sig.	r	Sig.	r	Sig.	r	Sig.
Administration of the School	.44	.01	.19	NS	.52	.01	.22	NS
Organization for Instruction	.27	.03	.50	.01	.28	.02	.27	NS
Instructional Programming	.26	.04	.11	NS	.21	NS	.63	NS
Curricular Materials	.27	.03	.30	.03	.16	NS	.51	NS
Evaluation for Instruction	.47	.01	.16	NS	.26	.03	.48	NS
Home-School-Community Relations	.61	.01	.24	NS	.27	.02	.07	NS
Community Learning Experiences	.42	.01	.53	.01	.19	NS	.41	NS
Facilitative Environments	.49	.01	.58	.01	.23	.05	.53	NS
Research and Development	.30	.01	.32	.02	.46	.01	.43	NS
Total	.32	.01	.29	.03	.27	.02	.50	NS

APPENDIX F

FREQUENCY OF INTERVIEW RESPONSES

FREQUENCY OF INTERVIEW RESPONSES ASSOCIATED WITH LEADERSHIP AND CHANGE FACTORS BEARING ON THE IMPLEMENTATION OF INDIVIDUALIZED PROGRAMS SIMILAR TO IGE/SECONDARY SCHOOLING

	School				
	A	B	C	D	Total
Facilitating Factors					
Leadership of principal	9	8	6	2	25
Instrumental leadership behavior	5	0	6	2	13
Participative leadership behavior	0	8	4	3	15
Supportive leadership behavior	4	5	3	2	14
Student-centered orientation	5	2	3	2	12
Identification of an existing problem	2	1	4	3	10
Exposure to alternative solutions	3	1	3	4	11
Involvement of staff	2	5	3	4	14
Time to tailor own solution	2	3	3	4	12
Staff commitment to the change	4	3	0	0	7
Central office support	3	4	2	2	11
Inservice training	2	2	1	4	9
Inhibiting Factors					
Departmental concerns	4	2	5	2	12
Dislike for team teaching	1	0	3	1	5
Lack of participative leadership	3	0	1	0	4

Frequency of Interview Responses Associated with Leadership and Change Factors Bearing on the Implementation of Individualized Programs Similar to IGE/Secondary Schooling (Continued)

	School				
	A	B	C	D	Total
Lack of administrative arrangements for shared decision making	2	0	1	0	3
Lack of staff commitment	3	0	0	0	3
Financial problems	0	8	0	0	8
Labor relations problems	0	4	0	0	4
Time and skill demands on the teacher	1	3	1	3	8

FREQUENCY OF INTERVIEW RESPONSES ASSOCIATED WITH PROGRAM ELEMENTS IDENTIFIED AS ENHANCING THE INDIVIDUALIZATION OF INSTRUCTION

Factor	School A	B	C	D	Total
Instructional and Advisory Units	0	4	7	5	16
Advisor System	8	3	3	2	16
Variety of course offerings	4	0	5	2	11
Opportunities for student decision making	3	1	1	6	11
Modular and block scheduling	0	0	3	0	3
Community learning experiences	5	2	1	7	15
Administrative arrangements for shared decision making	1	4	3	1	9

Center Planning and Policy Committee

Richard A. Rossmiller
Wayne Otto
Center Co-Directors

Dale D. Johnson
Area Chairperson
Studies in Language:
Reading and Communication

Marvin J. Fruth
Area Chairperson
Studies of Implementation
of Individualized Schooling

Penelope L. Peterson
Area Chairperson
Studies of Instructional Programming
for the Individual Student

James M. Lipham
Area Chairperson
Studies of Administration and
Organization for Instruction

Thomas A. Romberg
Area Chairperson
Studies in Mathematics and Evaluation
of Practices in Individualized Schooling

Associated Faculty

Vernon L. Allen
Professor
Psychology

B. Dean Bowles
Professor
Educational Administration

Thomas P. Carpenter
Associate Professor
Curriculum and Instruction

Louise J. Cherry
Assistant Professor
Educational Psychology

William J. Davis
Assistant Professor
Educational Administration

W. Patrick Dickson
Assistant Professor
Child and Family Studies

Lloyd E. Frohreich
Associate Professor
Educational Administration

Marvin J. Fruth
Professor
Educational Administration

Dale D. Johnson
Professor
Curriculum and Instruction

Herbert J. Klausmeier
V.A.C. Henmon Professor
Educational Psychology

Joel R. Levin
Professor
Educational Psychology

James M. Lipham
Professor
Educational Administration

Dominic W. Massaro
Professor
Psychology

Donald M. McIsaac
Professor
Educational Administration

Wayne Otto
Professor
Curriculum and Instruction

Penelope L. Peterson
Assistant Professor
Educational Psychology

Thomas S. Popkewitz
Associate Professor
Curriculum and Instruction

Gary G. Price
Assistant Professor
Curriculum and Instruction

W. Charles Read
Associate Professor
English and Linguistics

Thomas A. Romberg
Professor
Curriculum and Instruction

Richard A. Rossmiller
Professor
Educational Administration

Peter A. Schreiber
Associate Professor
English and Linguistics

B. Robert Tabachnick
Professor
Curriculum and Instruction

Gary G. Wehlage
Associate Professor
Curriculum and Instruction

Steven R. Yussen
Associate Professor
Educational Psychology

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